

better satellite

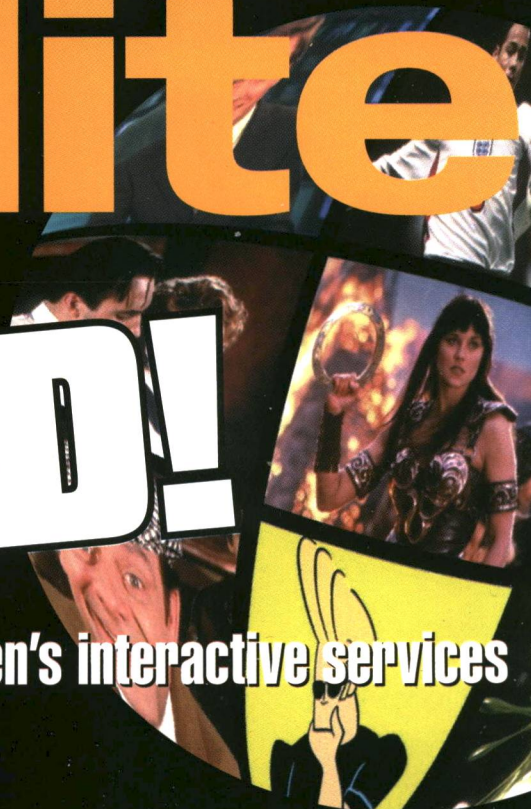
BRITAIN'S QUARTERLY

BUYERS GUIDE

skydigital

REVEALED!

New channels, the best Digibox, Open's interactive services



WATCH TV ON YOUR PC

Get top satellite shows on your computer for as little as £60

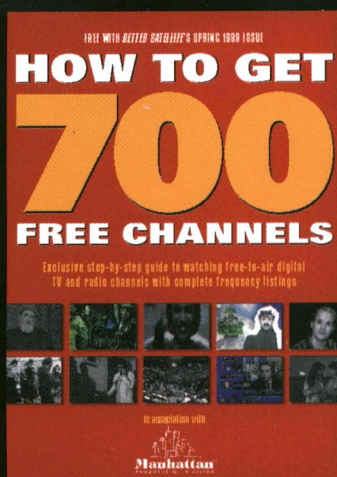


MOBILE MARVELS

Why miss TV when you go on hols? We test the latest portable satellite systems

TRIED, TESTED & RATED

Digital gear, budget multi-satellite receivers & sound amp packages



If your free booklet is missing, please ask your newsagent

WIN!
Two Sky Digiboxes
& Echostar systems



There Is Only One Choice

WHEN YOU WANT THE ULTIMATE LNB FOR QUALITY AND PERFORMANCE

VIDEO PRECISION



GENESIS 3

SINGLE OUTPUT

GENESIS XT2

TWIN OUTPUT

The Genesis 3 beat 17 Universals from 6 other manufacturers in the recent What Satellite tests, scoring an amazing 9/10 for both offset and C120 types, the Genesis 3 was named as the outright winner confirming it's position as NUMBER ONE for both Analogue and Digital reception.

"It certainly did improve picture quality, even the boss, F1 (that's the wife) noticed the difference. Video Precision certainly does have a nice LNB"

Eric Wiltshire, Chairman, The European Satellite User Group. Aug 1998

"These LNB's deliver the best results of the group as far as weak analogue signals are concerned. These LNB's also excel with Digital, In terms of performance, there is one outright winner - the GENESIS 3"

What Satellite TV Oct 1998

And the public say:

Dear Video Precision,
having just fitted one of your Genesis 3 Universal LNB's to my satellite set-up I felt I had to write and tell you of the improved performance and results obtained. Not only were my weaker channels improved, I also noted that the clarity and colours of my stronger pictures both in mac and pal were better too, all in all a lot crisper. One of the main channels to benefit was National Geographic on 2F1 at 13 degrees east, the picture is now actually better than our normal terrestrial, pictures lost their grain and became smoother and in general crisp and sharp. Needless to say I'm glad I changed my LNB as the improvements are second to none.

R Clarke
Dorset

I went into the deepest depths of Wales to get a replacement unit from Precision and fitted it last night.

WOW!

I was previously running a 0.8 and now have a 0.4.

The LNB has cleaned up the SKY signals so they are almost as good via composite as an average laserdisc pressing, - and I'm not joking. The reception for a number of weaker channels has improved, those that had sparkles are completely free, and those that were really bad are only slightly affected now- Steve.

Mr C Via Internet

I have now fitted your LNB to my dish. I find it enhances the picture quality. I am very impressed with the technology. I am sure you will have no problems in marketing this LNB and I am also looking forward to becoming an agent for you.

Many Thanks
Paul Bradford - Electrical System Installer and Repairer

Video Precision goes from strength to strength with it's award winning products. The Genesis 3 LNB is a state of the art Universal Low Noise Converter featuring the ultimate in Low Noise Technology. As proven by independent sources it out performs any other LNB on the market, featuring High Stability and Super Low Phase Noise. The ultimate in analogue/digital reception.

COMING SOON: The first Zero Insertion Loss C120 Polariser Controller for Universal LNB's - THE MAESTRO RT1

Buy with confidence from an Authorised Dealer

All Video Precision appointed dealers are required to comply with the stringent conditions we insist upon. All are established quality dealers chosen for their extensive knowledge and expertise of Satellite Equipment. All can offer demonstration facilities and full after sales care.

Call today for the experts choice...

01367 252197

AVAILABLE NOW DIRECTLY OR FROM SELECTED QUALITY OUTLETS
- 2 YEAR WARRANTY - DESIGNED AND HAND BUILT IN BRITAIN

AUTHORISED VIDEO PRECISION DEALERS

NORTH EAST - Vision International - 0191 488 6615. **NORTH WEST** - D&C Satellites - 01663 766 367 **SCOTLAND** - Clearview Communications - 0141 429 3647 **IRELAND** - Cosmos Satellite Systems +353 41 98 41002 **SOUTH EAST** - The Satellite Shop - 01892 548 468 **SOUTH WEST** - Signalmaster - 01935 413999, Bradford Aerials + Satellite - 01626 368539 **MIDLANDS** - Smallworld - 0121 359 8016 **Satvision** - 0121 377 7765 **S. MIDLANDS** - Club Tropicana - 01494 526670 **LONDON** - Spectrum UK - 0181 651 5030, Myers Audio 0181 520 7277, Newvision Electronics - 0171 580 8394, SMS - 01276 20916

The Award Winning Genesis LNB is the Best Universal that money can buy.

VIDEO PRECISION 15a Canons Drive, St John's Priory Park, Lechlade, Gloucestershire GL7 3HP

TELEPHONE: 01367 252197 FAX: 01367 253385 email: satstar@clara.co.uk

better satellite

EDITORIAL

0171-331 1000

E-mail: bettersat@aol.com

Web: www.bettersat.com

Editor

Mark Newman

Managing Editor

Geoff Bains

Chief Sub-Editor

Deborah Shrewsbury

Art Editor

Elizabeth Pearson

Designer

Joe Timmington

Group Art Editor

Steve Chamberlain

Contributors

**Paul Hiron, Eugene Trundle,
and Martin Pipe**

Production Editor

Michael Lamb

Group Circulation Director

Steve Hobbs

Publisher/Managing Director

Robert Lehmann 0171-331 1201

ADMINISTRATION

Administration

Tanya Benson 0171-331 1000

Credit Control

Alan Jaye/Havva Yusus

0171-226 2222

Accounts

Diane Fowler 0171-226 2222

ADVERTISING

0171-331 1000

Senior Advertisement Manager

Scott Lewis 0171-331 1283

Advertisement Manager

Claire Beach 0171-331 1282

Classified Representative

Simon Cooper 0171-331 1238

WV Publications

57-59 Rochester Place

London NW1 9JU

SERVICES

Film production

JJ Typographics Ltd

Printer

Polestar Carlisle Ltd

Distributor

**Comag, Tavistock Road,
West Drayton, Middlesex.**

© *Better Satellite* is published by WV Publications, a division of Highbury House Communications. All rights reserved. Reproduction in part or whole without permission is strictly prohibited. While every effort is made to ensure accuracy, we cannot take responsibility for losses resulting from publishing errors, however caused. The annual subscription rate for one year is: UK £9.20; rest of Europe £17 sterling; rest of world air mail £25 sterling; surface mail £21 sterling. Postage is free UK, included overseas.

5 News feed

The hottest guide to new channels, new equipment and all the latest developments in the world of satellite TV

11 Feedback

Got an opinion to share? A selection of readers' letters

22 Channel your energy!

A Common Interface receiver lets you tune into free-to-air digital channels and also keeps your options open for watching European pay-TV packages too

CI receivers on test: the Digiquist P1000, the Digiquist P1000 VA, the Gemini IT610S, the Manhattan ST-2000CI, Nokia's 9600DVB, and RSD's ODM300CI

36 Competitions

Your chance to win an Echostar AD-2000IP (with

► Take a tour of
Eurosport's website
page 69



◀ Get a sound
amp to
improve your
satellite
experience
page 44



14 Box clever

Better Satellite puts the five Sky Digiboxes from Pace, Panasonic, Grundig and Amstrad through a rigorous test to find out whether one is really better than the others



Gregorian dish and universal LNB) and two Grundig Sky Digiboxes

38 Satellite to go

Hitting the road for your holidays? If so, don't deprive yourself of satellite TV. We examine the latest portable systems on the market

Portable systems on test: Grundig's Microsat, Kathrein's BAS60/HDP160/UFD346, Technisat's Mobylsat 2, and the Arcon Sweetey

43 Subscription offer

For just £9.20 you can get a whole year's supply of *Better Satellite*, plus one extra issue completely free!

44 Dance to a different tune

Get the best out of all the satellite entertainment that is now broadcast in surround sound by checking out these sound starter kits

Surround sound packages on test: the Aiwa Z-VR880, Teac's Powerstation 1000, Sharp's CD-C491H, and Sony's MHC-RX11AV

48 Fab Five

We test five budget multi-satellite receivers – and are impressed by what's on offer

Multi-satellite systems on test: Echostar's SR200IP, Manhattan's LTP-7600, Eurosat's Manhattan XLT-9900Plus MkII, Nokia's SAT1800 Satscan, and Strong's SRT-350P

58 Spring TV preview

We have the lowdown on the wealth of TV, film and sports action coming to satellite this season



▲ Fionnuala Sweeney page 106

64 Help!

Got a problem with your satellite system? Our technical gurus will put you right

69 Web watch

The UK's only guide to satellite TV-related websites

71 Buyers' guide

The best no-nonsense guide to satellite systems

78 Your satellite kit explained

The vital parts of your system discussed in simple terms

89 Glossary/Contacts

92 Channel and subscription guide

Satellite tuning details, plus info on how to subscribe

106 Profile

Meet CNN's London anchorwoman Fionnuala Sweeney

31 Watch TV on your PC

Watching satellite TV on your computer needn't be difficult or expensive. We look at six kits that make it possible

TV PC kits on test: Skyvision, Easysat, Globosat's Vision, Hauppauge's WinTV, Miro's PCTV, and Pace's TV Card





**Suppliers of all Equipment from
Domestic to Professional Specification**

Trade & Export



**Special Offers
Every Month**



**Customer Service
Beyond Excellence**



**Same Day Delivery
Within London**

Free Phone 0800 0921120



**Full
Technical
Backup**



**SCC International
1 Fieldings Road
Cheshunt
Herts EN8 9TL**

**Tel. 01992 642255
Fax. 01992 641655
e-mail sales@scci.co.uk
Web <http://www.scci.co.uk>**

BBC to boost its satellite output

BETTER SATELLITE'S NEWS FEED
PRESENTS ALL THAT'S NEW IN
THE WORLD OF SATELLITE TV

BBC bosses have unveiled plans for a raft of satellite TV services in the wake of strong take-up figures for Sky Digital.

In addition to BBC Knowledge, starting on June 1, the corporation says it will start enhanced teletext this autumn and add more regional programming to BBC Choice, and broadcast more widescreen material.

BBC Digital Teletext will be available on Astra 2A free-to-air to all viewers with either a Sky or BBC digital viewing card. Quality will be better than that of Ceefax.

Page navigation will be via cursor

keys, fasttext buttons and the OK or select button on your handset. Digital text will soon also offer content links to other BBC channels, and the opportunity to 'shrink' the channel you are watching to a quarter of the screen and use the text service at the same time.

BBC Choice – which already expands to four channels between 10pm and midnight on weekdays when Scotland, Wales and Northern Ireland broadcast

their different versions – will add more weekend slots and themed evenings to its schedules. The main channel will also increase its transmission hours.

The BBC says it will also boost the number of shows it broadcasts in widescreen. About 33 per cent of the BBC's peak-time schedule is commissioned in 16:9 format and it aims to increase this to 50 per cent by autumn and 90 per cent in five years.

BBC Knowledge will provide learning programmes for early learners and schoolchildren fac-

ing exams, adults starting work, and mature people

seeking to retrain and satisfy their curiosity. Like the other BBC channels, it will be available free in digital on Astra 2A to viewers with BBC or Sky viewing cards.

Critics have attacked the BBC for using licence payers' money to start digital services that most viewers don't yet receive, but it says it has capped spending at 10 per cent of revenue.

B B C



The BBC's reputation for quality programmes will extend into digital satellite

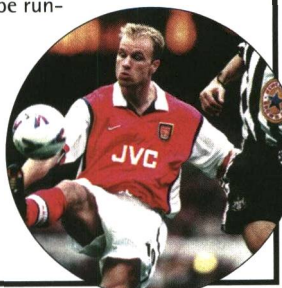
Sky gets active

Sky says it will launch its own interactive service – called Sky Active – this autumn, when viewers will be able to access background info on programmes.

The operation – which will be run independently from Open's interactive services – combines moving video, still images and text.

During live football coverage viewers will be able to choose which of several cameras around a stadium they wish to watch a game on. They will be able to replay goals in a quarter-screen sized window, and access game statistics and even choose to have a 'sports ticker' displayed at the bottom of the screen showing latest scores from other games.

Sky told *Better Satellite* that the service should be running for the new season in August. It will be available free to Sky Digital subscribers.



Healthy TV!

The Discovery Channel intends to add an eighth station to its digital line-up later this year as part of its continuing UK expansion.

Better Satellite understands that a UK version of Discovery Health Channel, already available on cable in the US, will be added to the Sky Digital line-up. Viewers will be able to learn about nutrition and fitness as well as techniques for looking younger and enjoying a healthy, active lifestyle.

Exact details of the station have yet to be finalised, but it is believed that it will be on air for 18 hours a day, just as Discovery Travel & Adventure, Discovery Sci-Trek and Discovery Civilisation.



NEWS SHORTS

FOX NEWS COMING TO UK?

The US cable TV network Fox News Channel is expanding overseas by launching in the Pacific Rim (which includes Australia) and the Middle East. Media mogul Rupert Murdoch, who owns the station, said two years ago that it would launch in the UK – but no schedule for such a debut has been announced.

PORN BID THWARTED

Hardcore porn channel Eurotica Rendez Vous has lost its legal bid to overturn the proscription order placed on it by the British government. Although a European Court hearing found the channel had a good case to appeal against the order – which made it illegal to sell viewing cards in the UK – the High Court in London has ruled in favour of the government's action.

WE'RE WATCHING MORE TV

The long-term decline in TV viewing in the UK has levelled off and is even showing a small increase, says a new study by the Institute Of Practitioners in Advertising. It reveals that viewers watched an average of 3.61 hours every day during 1998, whereas in 1996 and 1997 viewers watched 3.59 hours.

TOP STAFF QUIT DISNEY

Three senior members of staff at the Disney Channel UK have quit the channel within two months, amid reports of disagreements with new managing director Paul Robinson. The channel's director of programming, head of development and head of creative output have all resigned.

AUCTION CHANNEL DEAL

The Auction Channel has clinched a deal with Sky to show 10 live monthly interactive auctions on its sports channels during the coming year. Each 90-minute broadcast will be preceded by a 30-minute preview of top lots.

NEWS SHORTS

NEW WEBSITES OPENED

Interactive services company Open is among several satellite companies to have launched websites. It can be found at www.open-here.co.uk and others for both BBC World at www.bbcworldwide.com/ and BBC Prime at www.bbcprime.com/ have also started. MUTV, the football channel, is at <http://www.manutd.com/mutv> and music channel UK Play is at <http://www.ukplay.co.uk>

GALLOPING TO DIGITAL

The Racing Channel is considering offering its analogue subscribers money off their subscriptions this spring if they buy a Sky Digibox and switch to the digital version of the channel. Sources at the channel told *Better Satellite* that they hoped to cut subscriptions by as much as half from April or May to encourage take-up of digital. The channel wants to reduce its satellite transponder costs as it currently dual-illuminates on Astra 2A in digital and Astra 19.2°E in analogue.

FATHER TED ON PARAMOUNT

Paramount Comedy Channel has bought the rights to Channel 4's Irish comedy *Father Ted*. The Hat Trick series starring comedian Ardal O'Hanlon and the late Dermot Morgan, is set to appear on the channel at the end of this year. Paramount is also planning a *Seinfeld* weekend on May 8-9, and will hold a Spoof Weekend in June, when the films *Police Squad* and *Airplane!* will be shown.

PPV SOCCER HICKS OFF

Sky has televised the UK's first pay-per-view League soccer match. The goal-less game between Oxford United and Sunderland was shown on Sky Box Office for £7.95. Half of the fee went to Sky and the rest was split between the two teams and the Football League, which represents England's lower division soccer clubs. Sky did not release any official buy rates for the event, but it is believed that about 20,000 viewers bought the event.

DIGITAL SKY-ROCKETS

Thirty per cent of homes in the British Isles – some seven million in total – now subscribe to Sky's TV services, and the number is growing at more than 70,000 a month following the launch of digital satellite.

The figures emerged after the broadcaster said it had attracted 350,000 customers to its digital service by the end of January. And with 500,000 expected to have signed up by late March, it expects to notch up one million digital subscribers by October this year.

Although the launch costs have cut Sky's profits by 58 per cent to £53.2million, the broadcaster says it is delighted with the first months of digital TV. Almost 120,000 of the digital



subscribers are new to satellite – which Sky says demonstrates that it is not just analogue satellite watchers who want the service.

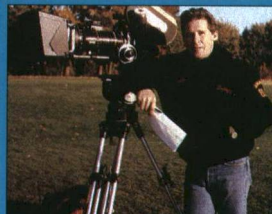
And, says Sky, a large proportion of digital viewers are buying the full channel package rather than the smaller, cheaper bouquets. Furthermore, it says 'virtually all viewers' are buying at least one pay-per-view film a month.

Pilot TV launch

A new UK channel which intends to show programmes from aspiring TV producers is putting the finishing touches to launch plans.

Pilot TV plans to start in analogue on Astra 19.2°E in Sky's digital package this autumn. It intends to be on the air for around 16 hours a day.

Original quiz shows, music videos and dramas from UK and US producers are being lined up. 'There are a large number of programme makers around the world who want to have their work broadcast in order to gauge the public's reaction,' the channel told *Better Satellite*. It added: 'We are confident of getting analogue and digital carriage, but the only hitch will be in raising enough cash for the launch. We are reckoning on needing almost £1million to be fully operational.'



IT'S HARDWARE!

In a big shake-up of the satellite porn market, two hardcore porn channels have launched and two others have closed.

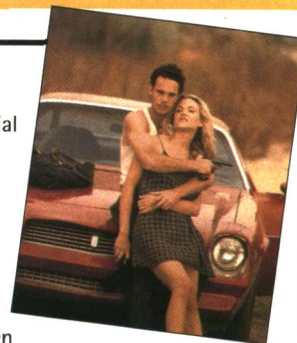
Torrid TV, run by the owners of proscribed channel Eurotica Rendez Vous, is available daily from 11pm to 4am in both D2-Mac at 13°E (11.282GHz/V) and in digital (encrypted in Conax) on Intelsat 707 at 1°W (11.592GHz/H, 17496 SR and 3/4 FEC).

Amour TV was also due to launch as we went to press. It is on air from 11pm-4am and is available in both digital (encrypted in Viaccess) and D2-Mac at 13°E.

Meanwhile, Eurotica Rendez Vous has ceased broad-

casting hardcore material and has become a promotional channel for phone sex lines.

Channel Bizarre has also gone off-air after its owner, Paul Goodman, claimed it had been served with a proscription order by the British government. In fact, no such order had been placed on the channel and thousands of subscribers have been left out of pocket. Trading standards investigating the matter.



CABLE TANGLES SOLVED

If you've gathered a stack of satellite receivers, decoders and positioners over the years, one corner of your living room is probably strewn with a complicated mess of wires and cabling.

But now help is at hand with the Satellite Cable Tidy, which lets you conceal cables and simplify the overall setup. The wide superflex tube will house your cabling and prevent hazards caused by loose wires. At £7.99 each, the Cable Tidy is available from Digital Sales on 01257 471204.



Terrestrial combat

ITV 2, the ITV spin-off channel, could come to digital satellite after all. Sky has offered to foot the bill for carrying the service on Astra 2A.

The terrestrial broadcaster had said it wanted to keep its services exclusively on digital terrestrial TV to promote the service. But Sky says it is wrong for the company to withhold its channels and has asked MPs to investigate.





DON'T NOK IT!

Nokia is set to unveil its much-anticipated Mediamaster 9800S digital receiver in May. The high-end system, a follow-up to the company's 9600S, has a new-look onscreen menu (pictured) and a number of pay-TV functions.

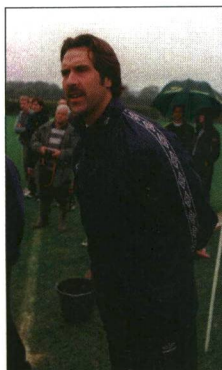
These include an embedded Viacess Conditional Access Module (CAM) and a Common Interface slot suitable for use with Irdeto,

Nagravision and Conax plug-in CAM modules.

The system has two Scart sockets along with a UHF loopthrough (which was omitted from the 9600S), stereo audio outputs, an RS232 serial connection and a single LNB input. It also features DiSE-qC 1.2 switching for operating sev-



eral LNBs and has a symbol rate range of 2000-45000. More details from Nokia on 01793 556000.



Stars in their eyes

Sky One has commissioned two new British shows which will debut on the channel in coming months. One is a dating show in which eight single strangers are thrown together each week in a Mediterranean villa, and the other is a fly-on-the-wall series following celebrities' exploits.

The first, called *The Villa*, will be transmitted in September. In each episode, four couples are theoretically 'matched' by a

computer and then sent away to spend a week together in the Med. The show follows them to see if they pair up as predicted by the computer. Viewers will know which couples are supposed to be suited, but the participants won't be told.

The second series, *Guiding Stars*, debuts in June and will follow sports and entertainment stars as they pass on their expertise to amateurs in their fields. Each of the six hour-long episodes will feature training sessions and advice from the stars.

Video blocking

Sky Digital's use of Macrovision encryption, which prevents viewers from recording pay-per-view events, could be extended to Sky One shows later this year.

A Sky spokesman said Macrovision could be used on popular programmes such as *Friends* and *ER*. 'It's not up to us.



It's the programme vendor that will decide whether to extend it to, say, *Friends*, in which case we would have to abide by Warner Brothers' demands.'

Sky is compelled by Hollywood studios to use the system on its digital pay-per-view film channels. It says: 'We cannot negotiate on this. We are bound by Hollywood, which is concerned about movies we broadcast shortly before they go on rental in video shops.'

SATELLITE RADIO NEWS UPDATE

□ The legendary Radio Caroline is back on the airwaves. The part-time station is available at 10.994GHz/H on Astra 19.2°E (the transponder of TV Travel Shop and Challenge TV) using the audio subcarriers 7.38/7.56MHz 9am-9pm (Sat and Sun).

□ Music Choice, available on Sky Digital, is to transmit all the winning finalists' songs in the Eurovision Song Contest before the event on May 29. It will air on the Hit List Channel from 12noon for two hours.

□ Popular UK station Klassik Radio is back on Astra 19.2°E after a couple of months off-air. It can be found at 11.272GHz/V (Vox) using the 7.74/7.92MHz subcarriers.

□ Country Music Radio has re-started on Astra 19.2°E. It can be heard every evening at 10.847GHz/V using 7.38/7.56MHz.



Sherwood's budget buster

Film fans can make the most of satellite TV's surround sound output if they buy Sherwood's latest budget Dolby Pro-Logic receiver. At £99.95, the RV4080R is the first surround sound unit for under £100. It boasts 5 x 35W (RMS), five audio outputs, two video inputs, a subwoofer output, FM/AM tuner, and a full function remote control.

Other functions include a preset scan, sleep timer, Dolby 3 channel stereo, adjustable digital delay and test tone generator. More info from Richer Sounds on 0171-940 2240.



NEWS SHORTS

MUSIC CHOICE DANCE DEAL

Dance promoter Universe has signed a five-year sponsorship deal with Music Choice that will see the company broadcasting its own show on Music Choice's Dance Channel every Friday and Saturday at 7pm. Under the deal, Universe will act as Music Choice's exclusive dance promoter.

GET IN THE GROOVE

Three new MTV channels will be available to Sky Digital viewers from July 1. MTV Base will be a dance channel delivering R&B, rap and dance music, MTV Extra will be programmed to counter-schedule whatever is happening on the main MTV channel, and VH-1 Classic will be home to classic hits. The services will be part of the Sky Digital line-up and be available in the 'Kids & Music' and 'Family' packages.

PHILIPS JOINS SKY DIGITAL

Philips says it is to produce its own Sky Digibox, which will hit shops in late spring. Philips has also been contracted to supply infrared remote keyboards to Open, the interactive service. Philips and Sky are also working together on upgrading integrated digital TVs to receive satellite services from Sky and other broadcasters.

SKY LOGS ON TO AOL

Sky is to supply news and information to the Internet Service Provider AOL. Sky will have a continuous presence on its entertainment, sports and news pages, giving direct access to breaking stories and special features. The two companies will share revenues from advertising and Internet shopping.

THE END FOR MELROSE PLACE

Fox TV, producer of Sky One drama *Melrose Place*, says the latest season of the series – about a sexy group of Los Angeles apartment complex residents – would be its last. *Melrose*, with its attractive cast and steamy plots, was once the talk of TV. But the show has fallen in popularity in the US. 'I will miss it and everyone involved with it,' said producer Aaron Spelling.

NORTH EAST SATELLITE D2 MAC SPECIALISTS

ACTION REPLAY FOR PlayStation



the need for the internal mod chip.

£19.99 + £1.50 p/p

NEW PRODUCT OUR ACTION REPLAY CARTRIDGE

Crammed full of game busting codes, special features, this cartridge also allows you to play USA & Jap imports etc without

Memory cards for PFX



1Mb - £6.00
2Mb - £9.00
4Mb - £12.00
8Mb - £15.00
(+ £1.00 p/p)

UPGRADES
ARE FREE



EUROPLUS D2 MAC DECODER

Quality pictures, PAL/Mac input, remote control, text, inc NES platinum wafer, free upgrades via our free 24 hour code line

only
£129

+ £8 p/p

PLAYSTATION VCD ADAPTOR

A plug and play unit enabling you to watch your video CD films on your television screen



only **£59** + £3.50 p/p

ADVANCE CARD

The advanced Canal + card works on all 1°W and 5°E channels inc TV1000, with new code advance feature for Canal +. New codes for Canal + available in advance 24 hours via telephone or our website.

£99 FREE P/P

UNIVERSAL LNBs

only **£29** inc p/p

NEW OMNISAT 2

£220 + £8 p/p

PSX MOD CHIPS £5

SIMPLEX 4 KEYPAD CARD

£45 + £3.50 p/p

UPGRADES
ARE FREE



THE NES PLATINUM WAFER CARD

Large EPROM storage area holds all known 1° west and 5° east codes inc Canal N&D. Free upgrades via our free 24 hour code line. Exchange Card for £20.00

Only **£29** + £3.50 p/p

PHILIPS CTU 916

D2 Mac decoders, twin card slots, remote control, teletext inc NES platinum wafer card and Canal+ card both upgrade free via our free 24 hour code line.



UPGRADES
ARE FREE

only **£129** + £8 p/p



NORTH EAST SATELLITE 0191 2922173/07050 136 733

11 RINGWOOD GREEN, BENTON, NEWCASTLE UPON TYNE NE12 8DR

www.nesat.com



Clearview International

sky digital **£199**

NOKIA

9200 **£379**

9600 **£359**

9800 **£POA**

(cams available)

BEST ENTHUSIAST'S
DIGITAL RECEIVER



Wavecom SR

(Wireless Video & Audio
Full Stereo & Video, 100 metre range)

£119.99

Inclined Orbit Tracking for Channel
Master dishes

£99

ECHOSTAR

AD2000 IP

Motorised Analogue/
Digital Receiver

ECHOSTAR

AD8700 VC & MAC

£499

£699

GENESIS 3.4

Single LNB

£119

GENESIS XT2.4 Twin LNB

£169

MAC 400 D2 MAC Decoder

£210

PHILLIPS CTU 916

D2 MAC Decoder

£119

BEST MOTORISED/
ANALOGUE RECEIVER



BEST SATELLITE TV ACCESSORY



SATISFACTION
Digital Viewing Card
ONLY £199

Tel: 0141 429 3647

Fax: 0141 429 3648

Email: clearview@cablco.uk

**46 KINGSTON ST,
GLASGOW G5 8BP**

Digiquest's new duo

Digiquest, the satellite manufacturer formerly known as Humax, is to release another high-end digital receiver and a complete multi-satellite setup to its line-up this year.

It has just unveiled the Digiquest P1000 VACI (tested in this issue), which features two Common Interface slots and a Viaccess CAM, and now intends to follow this up with the Digiquest P1000 Irdeto CI.

This system, to cost around £450, will be the first to boast an integrat-

ed Irdeto CAM and two Common Interface slots. It will be ideal for receiving the German DF-1 package off Astra 19.2°E and, using suitable CAMs, other pay packages as well. It will be launched in August.

Digiquest is also launching its first package for multi-satellite viewers this spring. The setup includes a P1000 receiver with two Common Interface slots, DiSeqC 1.2 switching

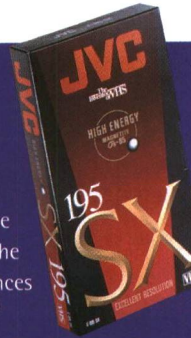
(for operating up to eight LNBs from one dish) and a Digirotor mount similar to the popular Satwalker unit. Like Nokia's Satscan, this will enable one cable to run from the receiver to the dish. For details, call Turbosat on 0171-537 1010.



EU VIDEO BAN

Not content with their bid to ban use of D2-Mac decoders and pirate viewing cards across Europe, EU bosses are now trying to stop satellite viewers recording their favourite TV programmes. The European Parliament wants to ban all forms of private copying of electronically transmitted audiovisual material in a bid to tighten up the rules on copyright protection in the digital era.

Although the EU recently voted in favour of a ban, the proposed directive is being opposed by several EU states, including the UK. A government spokesman said: 'We will continue to protest. We believe that copyright rules apply across the board except in limited circumstances and 'time shifting' is one of them.'



Shopping shake-up

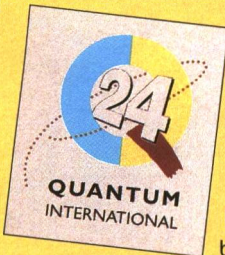
Shopping channel Quantum 24 is among several analogue channels to have started or changed frequencies at Astra 19.2°E. The 'informercial' station has launched at 11.081GHz/H and is available in clear PAL from 2am-6am daily.

Sky Box Office 1, which transmits from midnight to 7am, has moved to 10.744GHz/H, owing to the increase in evening hours for

the Disney Channel. The Sky Digital Promo Channel is now at 11.303GHz/H in PAL clear

from 1am-6am, and is repeated at 11.171GHz/H between 3am-7am from Sundays to Thursdays.

Film Four (10.862GHz/H) has begun a teletext service. Shopping channel Sell-A-Vision has lost its timeshare with Vox at 11.273GHz/H after the German channel began broadcasting 24 hours.



ECHOSTAR'S SUPER SEVEN

Echostar unveils seven satellite receivers this spring, all of which are geared to viewers wanting to watch digital TV.

The AD-3000IP will be an analogue/digital receiver with a single Common Interface slot and internal positioner. The latest Echostar software will be incorporated and it will have access to 2,900 digital and 700 analogue channels.

Multi-satellite enthusiasts are the market for the D-2500IP, a digital dual Common Interface receiver with an internal



positioner featuring Echostar's new positioning and auto-scan features.

Other systems are the DSB-4000, which will feature an integrated Viaccess Conditional Access Module (CAM) for receiving French TV and erotic pay services. And the DSB-1000 will be a free-to-air system with no CAM suitable for receiving the 700 free TV and radio stations available. The DSB-1000CI will have similar features to the DSB-1000, plus two CI slots. The DSB-8100 will be a CI receiver with a dual-card reader and the Open TV User Interface. Last is the DSB-8150, which has a Nagravision CAM to get Spanish TV packages.

WINNERS GALORE

We had a mountain of prizes to give away in our winner issue. The winners of the two Lemon Volksbox receivers were C Holden (Nelson, Lancs) and A Rollo (Chelmsford). The five winners of the single output Genesis 3 LNBs were R Vox (Cleveleys, Lancs), R Chandler (Caldicot, Gwent), V Condon (Birmingham), J Benn (Bournemouth) and B Healy (Co Tipperary, Ireland). The five winners of the C120 output Genesis 3 LNBs were A Thyer (St Columb, Cornwall), J Van Der Elsen (Ellon, Aberdeenshire), J Broughton (Yateley, Hamps), L Gray (Newark, Notts) and L Zarrad (Kettering). The five *Caribbean Uncovered Uncut* videos were won by N Jefferies (Bexhill, East Sussex), J Dunbabin (Warrington, Cheshire), D Etwell (Kidderminster), J Hennessey (Co Limerick, Ireland) and P Wadsworth (Sandhurst, Berks). The eight Film Four goodie bags were won by N Burnett (Nottingham), V Connery (Newcastle Upon Tyne), A Innwood (Telford), H Malik (Epsom), P Bevans (Neath, Wales), S Knight (Ayr), A Slade (Faringdon, Oxon) and F Ritchie (Co Down, Ireland). Congrats one and all! Your prizes will be on their way soon.

NEWS SHORTS

CNN FOR MOBILE PHONES

CNN Interactive has launched CNN Mobile, a news information service for mobile phone users. Developed with Nokia, the service will offer users who subscribe news headlines and stories direct to their handsets. Nine operators in Europe and Asia will offer the service soon.

HIGH-SPEC DIGITAL SYSTEM

Video Precision (01367 252197) is to release the £1,600 Alchemy 2000, a digital/analogue receiver with two Common Interface slots and a built-in Mac decoder, plus optional Videocrypt decoder. It also has an integrated Videosender facility for use around the home and is controlled using a LCD touch-screen remote. It will be available in May.

EU MAC BAN PROGRESSING

The EU's proposal to stamp out satellite piracy and the use of unofficial viewing cards across Europe is still being considered by the British government. Although there were initially fears that possession of Mac decoders could become illegal if the proposals were adopted, it is now understood that the article will not affect consumers but only commercial operations.

MAC CHANNEL GOES DIGITAL

Canal Plus Denmark has become the first of the Scandinavian D2-Mac channels to cease analogue transmissions at 1°W and go digital. Because of the large number of D2-Mac viewers in that region, Canal Plus says it has no immediate plans for the other channels to switch off their analogue feeds.

SPRINGER AD BROKE TV RULES

TV watchdogs have issued Living with a formal warning after its promotion of the Jerry Springer Fan Club broke British TV rules. The advert offered viewers membership of the fan club for £9.99. But the promotion of such off-air activities is only allowed if such material supports actual programme content. Contents of the pack did not, in the ITC's view, support the *Jerry Springer Show*. A warning – but no fine – was issued.

SPECTRUM



THE DIGITAL DAWN

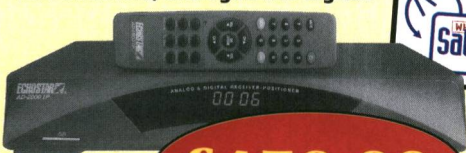
PHONE THE REST... THEN BUY FROM THE BEST

SPECIAL AWARD WINNING OFFERS

ECHOSTAR AD2000ip

- 2900 programmable channels, 50 satellite positions, 999 transponders, low threshold, analogue and digital.

Best Multi-Satellite Receiver



£479.99

ECHOSTAR SR200ip

- 250 channels, 50 Satellite Positioner

Best Multi-Satellite Receiver



£129.99

NOKIA DVB9600S

- Full SCPC compatible, 1000-45000 Symbol rate, 400+ channel storage, very well supported

Best LUXURY RECEIVER



£339.99

Best SATELLITE ACCESSORIES

GENESIS 3 LNB'S

- | | |
|----------------------------------|----------------|
| • SINGLE 40mm | £125.00 |
| • SINGLE C120 | £135.00 |
| • TWIN 40/23mm | £175.00 |
| • TWIN C120 | £185.00 |
| • FEED POLARISERS FOR UNIVERSALS | £99.99 |



UK'S LOWEST PRICED FREE TO AIR DIGITAL RECEIVER!

DIGIQuest P100

- 400 channels storage, RF loop through, Di-Seq - LNB Loop through, 2000 - 32000 Symbol rate, SCPC Compatible

Best Budget Digital Receiver



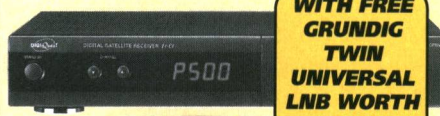
£219.99

Only From Spectrum!

DIGIQuest P1000 F1 Ci

- 1000 channels storage, Full SCPC Compatible, 2000 - 32000 Symbol Rate, RF & LNB Loop Through, Twin Cam Slots

WITH FREE GRUNDIG TWIN UNIVERSAL LNB WORTH £39!

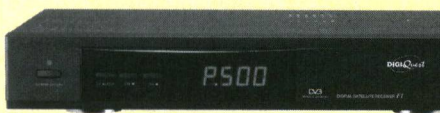


£349.99

Now with DiSeq Positioner Software

DIGIQuest P1000 VA

- Via Access Bulletin, Twin Cam Slots, Full SCPC Compatible, 2000-32000 Symbol Rate, RF & LNB Loop Through



£399.99

Now with DiSeq Positioner Software

Free To Air Channels Include:

- Canal + (BEL)
- Canal + (GUL)
- Canal +
- Hallmark
- Fox Sports
- CBS
- TNT
- Asianet UK
- Bet On Jazz
- Discovery
- TV2
- TV5
- Rai Uno
- Rai Duo
- Rai Wide
- Rai Sat 1
- Rai Sat 2
- Teleplus
- Sat 2000
- Italia 1
- Canale 5
- Rtl 4
- JSC
- TVE Galicia
- TVE International

FULL UP TO DATE LIST FREE WITH EVERY DIGITAL RECEIVER

Visit Our Website: www.spectrum.uk.com E-mail: david@spectrum.uk.com



PLEASE CHECK ALL DELIVERIES PRIOR TO SIGNING.

ORDER HOTLINE...
0181 651 5030

Calls may be recorded for training purposes

FAX: 0181 651 6300

SPECTRUM 119 Addington Road, Seldson, South Croydon CR2 8LH

NEXT DAY DELIVERY FROM £12
LNB'S WILL BE SENT RECORDED ROYAL MAIL
DELIVERY FLAT RATE COST £4.00.
TNT NEXT DAY DELIVERY BY 12.00PM £12.00 ALL DELIVERIES FULLY INSURED.



GOT AN OPINION TO SHARE? WRITE TO BETTER SATELLITE EDITOR
MARK NEWMAN AT 57-59 ROCHESTER PLACE, LONDON NW1 9JU,
OR SEND AN E-MAIL TO BETTERSAT@AOL.COM

Irish eyes not smiling

I would like to express my disgust at the way people in the Republic of Ireland are being treated by Sky Digital. We cannot avail ourselves of the subsidy on the digital equipment that British Interactive Broadcasting (BIB) offers for the UK and Northern Ireland because BIB only operates in the UK and its services do not extend to the Irish Republic, even though there are thousands of analogue Sky subscribers already in Eire.

I have written to BIB and it says that there are no future plans for it to operate outside the UK. I have also written to Sky and it cannot offer a solution to buying the equipment at a subsidised price.

Now all we can hope is that a company similar to BIB sets up in the Republic to offer interactive services and subsidise the equipment – something I don't think is going to happen.

Sky Digital and BIB should have realised this problem before launching their service. They should have come up with a solution for ALL subscribers to be able to benefit from the subsidy price.

I have been subscribing to Sky for over 10 years and if I want to buy a Sky Digibox I will have to pay the unsubsidised price of a whopping £370 to watch Sky Digital when about 30 miles up the road from me in Northern Ireland they can get the equipment for a reasonable £159.99. It's simply not fair.

If there is no way that BIB can operate outside the UK, then Sky Digital itself should organise a subsidy for the equipment purchased in the Republic. If something doesn't get sorted out soon I can see people turning from Sky and subscribing to digital terrestrial and cable services instead – *Andy Robus, County Sligo, Irish Republic*

□ You make a good point. It doesn't seem fair that those customers in the Republic of Ireland should have to pay more. We put your comments to Sky, which replied: 'BIB is investing a lot of money in the UK and wants to get its service fully operational here before looking further afield. Those who buy Sky Digital systems in the Republic of Ireland are still getting great value for money because



they can receive all the TV and audio channels on offer, plus the Sky Box

Office services, which can be purchased from the handset when the receiver is hooked up to a 'phone line.' All Better Satellite can add is that we're sorry it is not a more positive reply, Andy.

CUT THE PROMOS!

I have to write to complain about the frequency of advert breaks on some of the American news channels – particularly the business channel CNBC. These would not be nearly so annoying if they were adverts for proper products, but instead they're promotional adverts for the channel!

'First in Business Worldwide' it screams every 10 minutes during the day. When the news coverage itself is so good, why is it spoiled by these ridiculous ads? – *M Davis, Ayr*



□ We'd agree. CNBC said: 'We do take seriously views regarding the promotional adverts. In fact, as of February, we have already halved the time per hour devoted to on-air promos and added extra news programming. We are presently looking at several initiatives to add more variety to our advertising breaks and hope that you are already able to see a significant difference.'

GONE TO THE DOGS

I know that live TV coverage of dog racing is provided in betting shops around the country, but I have never seen any regular coverage on satellite.

Do you know whether The Racing Channel or any other

QUICK QUERIES

■ I used to be able to watch an excellent Mexican TV channel on Astra 19.2°E until it stopped broadcasting a couple of years ago. I can't remember the name of it, but do you know whether it is available from any other European satellite? – *Harry Hodges, Bath*

Galavision is the station you remember. It is sadly no longer available in analogue at the time of writing. But if you buy a free-to-air digital receiver and an 1m dish pointed at Panamsat 6-3R at 43°W, you can see it at 12.580GHz/V (symbol rate 27500, FEC 3/4).

■ Is there any reason to stop me buying a Sky Digibox and then using it to receive digital channels from other satellite positions using a steerable dish or a multi-LNB holder? – *Simon Polter, via e-mail*

No, you can do that. But the Digibox can only store 50 such channels and these must have the symbol rate 27500 or 22000. Either way, it should do no harm to your receiver. Judging by readers' letters to us, however, it is not as straightforward as you might think. See our article later in this issue.

■ I was interested to read about the interactive services to be offered by Open later this year. I'd like to find out more about how I will be able to use it. How can I contact the service? – *J Hill, Bath*

You can call it on 0171-332 7000 or access its website at www.open-here.co.uk



channels have plans to add dog racing to their schedules? I would certainly subscribe to any channel that does – *G Granger, Southampton*

☐ Yes, The Racing Channel does intend to offer coverage later in the year, but no date has yet been set. Keep an eye on the sporting press and, of course, Better Satellite's news pages.

DISCOVERY'S LOGO LUNACY

I must vent my anger about the size and colour of the onscreen logos being used by Discovery's seven digital channels. The content of the channels is first-rate (we particularly enjoy Discovery Travel & Adventure) but the logos are just downright ridiculous.

They are far too distracting. I just cannot understand why any of Sky's digital channels still use onscreen branding when the Sky

Guide and 'Search and Scan banner' already tell us the name of the channel we are watching – *K Johnson, via e-mail*

☐ Yes, those Discovery logos are annoying, so we sent your comments off to the broadcaster, whose vice-president of marketing, Chris Turner, replied: 'We welcome all comments from our viewers and take their views seriously. Analogue subscribers have not had the benefit of an EPG and have resorted to zapping across channels to help them find good programmes. In these circumstances, the onscreen logos have been useful in helping viewers make these decisions.

'If, in future, we find that they are more of an irritant to viewers than a help, we will remove them. It is difficult to design a logo which looks good in all situations and can reinforce a channel's characteristics. Inevitably, design is a subjective issue and people's opinions will differ. We're sorry that Mr Johnson does not like these particular designs.

'They are part of a process of continuous review and if we find there is substantial support for his point of view, we will commission a redesign. Readers can contact us with their views at TV Direct, 10 Queen's Square, Bristol, BS1 4NT, Tel: 0117 909 1221.'

DIGITAL HOTCHPOTCH

Judging from your channel list (*Better Satellite*, Winter issue) the number of films available to

Sky Digital viewers is far greater than through my existing three analogue channels. As a film fan, I'm keen to take the plunge and 'go digital' but I find it strange that Sky is merely offering a hotchpotch of films on these extra channels.

It would be far better if Sky were to offer thematic film channels (as is done on the Continent) where individual stations show films with a common genre such as romance, action, comedy, suspense and so on.

Viewers would then be able to tune in to a channel in the knowledge that they are assured of finding a film to their liking. At the moment it's just pot luck whether you find a film of your choice – *Nigel Phillips, London SE1*



☐ An interesting proposal. At the moment Sky wants to provide as wide a choice of films as possible, but we hear that it does have plans to unveil themed movie channels during the next 12-18 months.

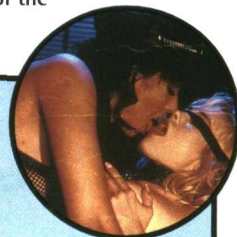
NEWS DELUGE

You were right about the fantastic choice of 24-hour news channels provided by Sky Digital (*Better Satellite*, Winter issue). Since getting my system installed in mid-March I've been glued to the coverage provided by CNN, CNBC, Sky Sports News, BBC News 24, Sky News, Bloomberg and BBC Parliament. There's also some great news coverage on Irish channel Tara and the regional versions of BBC Choice, but I would like to see more American news. Do you know of any US channels planning to launch? – *Ross McGregor, Skipton*

☐ It has long been rumoured that Rupert Murdoch's Fox News Channel is planning to launch here. We understand this is likely to happen by the end of the year.

TALKING POINT

Should hardcore satellite porn channels be banned?



YES. I was delighted to read that the government has placed more proscription orders on the hardcore porn satellite channels Eros and Eurotica Rendez-Vous. There's no excuse for this filth to be on our screens.

With numbers of rapes, sexual offences and incidents of paedophilia rising, I strongly believe that all explicit sexual material should be banned from video shelves, the Internet, TV and magazines.

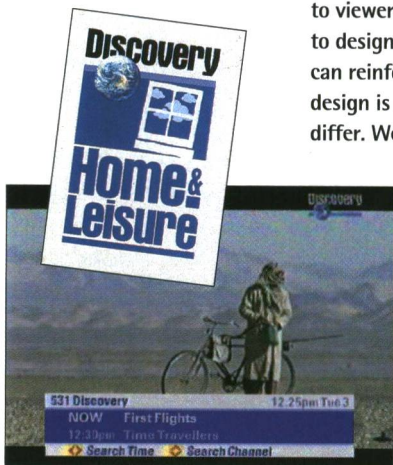
The media should uphold high morals so that younger people are shielded and not tempted into a life of sin. I don't consider myself to be a prudish 'fuddy duddy' type or even a religious person, but it is correct that the government should continue to ban these smutty satellite offerings – *Ida Thomas, London*

NO. Why should the government reduce our free speech by preventing TV viewers watching hardcore porn? It seems as though it is trying to hide away sexuality and also imply that such acts are wrong.

Since sexuality is something that comes naturally to all of us and keeps the human race alive, surely there's nothing wrong with watching it.

Providing that young children are not exposed to it, and that the channels employ adequate encryption methods to ensure this, we should be able to continue to watch such programming.

Those who do not want to watch these sort of shows should simply turn off their TV sets. There are plenty of other programmes available that won't offend – *H Rogers, Cardiff*



SATISFACTION CHANNEL SCT

UK ORDERS 01276 20916 FAX 01276 678740
INTERNATIONAL ORDERS +44 1276 20916 FAX +44 1276 678740
 e mail: sms.satellite@business.ntl.com.



Transmit UK, Europe, Africa, Middle East

Get some now!

Hotbird 2 - Frequency 11.842Ghz (super beam),
 Vertical, 27500, 3/4 in IRDETO (SUPER)
 Hotbird 2 - Frequency 12.091Ghz (wide beam),
 Horizontal, 27500, 3/4 in IRDETO (WIDE)
 Hotbird 3 - Frequency 12.303Ghz Vertical, 27500, 3/4 in
 Viaccess

Transmitting encrypted
 Adult Hardcore Films from
 21.00GMT to 05.00 hrs Daily

12 month's subscription

£199

P&P £3.80

Item No.1

WORLDS BEST UNIVERSAL LNB BY GENESIS

Universal LNB with a noise figure of
 0.4dB Banish Sparkles. Pulls in Weak
 Signals, Improves picture resolution
 and quality, Digital Compatible &
 Loads more channels.



Item No.2 LNB SINGLE £125

Item No.3 SINGLE C120 £125

Item No.4 TWIN £185

Item No.5 TWIN C120 £185

P&P £3.80



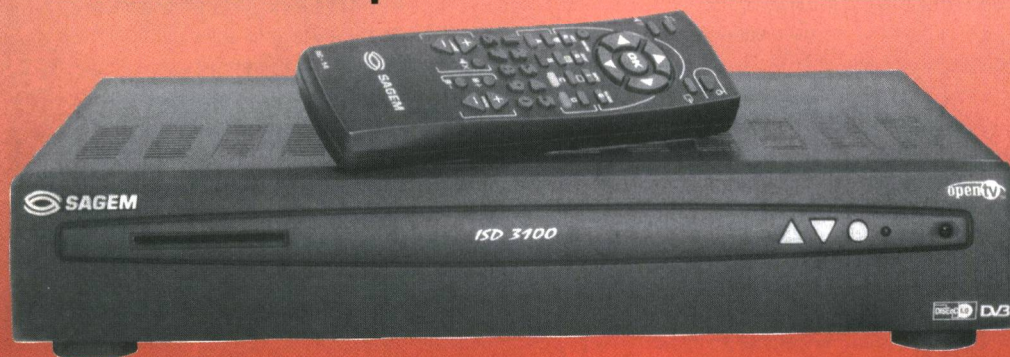
SAGEM ISD 3100

- Digital Satellite Receiver with built-in viaccess CAM
- Easy to operate
- Decoder Loop

£239

P&P £9.90

Item No.6



Arabesque

RADIO
 ASIA

NTV

SBC

DIGITAL CARDS

NTV1 + 2 Russian	£88
SCT CHANNEL Middle East	£199
AB sat XXXL EU+Middle East	£299
TPS French	£380
CANAL + Scandinavia/France	£499
PAKISTAN TV	P.O.A.
FILMNET Greece	£189
MULTICHOICE Holland/S.A.	£189
TELEPIUS Italian	£189
DF1 German	£189
SHOWTIME	£189
Item No. 7	P&P £3.80

Please make cheques and P.O.'s payable to SMS Ltd.

or charge my:- ACCESS ☐ VISA ☐ DELTA ☐ SWITCH ☐

CARD No. Switch Issue No.

Expiry Date

Name: Address:

Postcode: Tel:

Items Ordered Inc Item No. & Qty Req.

Total:

Post this form to:- S.M.S. Ltd Unit 1A Bridge Road, Camberley, Surrey GU15 2QR

For credit card payments Tel: 01276 20916 Fax: 01276 678740



Come and get it!

**IF YOU THINK
THE EXISTING
SKY DIGITAL
SERVICE IS
IMPRESSIVE,
TAKE A LOOK
AT WHAT'S
STILL TO COME**

You might not agree with the money-making antics of Sky, but you have to hand it to the broadcaster – its digital service is highly impressive. More than 180 channels provide a huge choice of news, sport and entertainment around the clock. And this is just the start. The nature of digital satellite TV means that an almost unlimited number of channels can be added to the line-up.

Unlike digital terrestrial TV, where the limited capacity means only 40-50 stations can be offered, Sky's package can grow at a rapid pace as more satellites are launched. Sky could well offer up to 1,000 channels in 10 years' time.

Even since last autumn's digital launch, a number of channels have been added to the line-up. They include BBC Parliament, providing live coverage of the Commons and Lords,



Cartoon Network 1 and 2 (showing 24-hour 'toons on two separate channels), Travel (holiday documentaries), S4C (Welsh programming), CNN (news), CNN Radio News (American news bulletins) and

Shop! (home shopping). Look at our *Channel Guide* at the back of this issue for a complete line-up.

Over the next few months that choice will grow even more. Minority groups will get their own channels, and niche interests will get air time. Among these are The Charity Channel, which intends to be on the air by early July. It will focus

on issues affecting the UK's 350,000 voluntary organisations. 'It will give a voice to the socially excluded, minorities and disabled people, children and the elderly – all those whose opinions are either forgotten or ignored on conventional TV,' says the channel's owner, The Media Trust. Its £4million annual budget will be funded by Sky, ONdigital and Cable & Wireless.

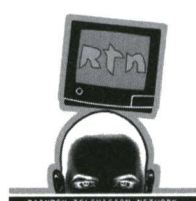
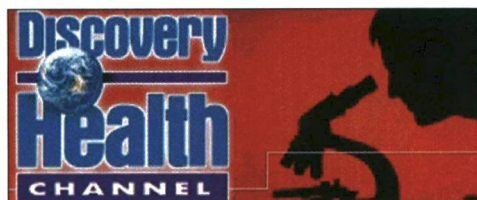
Other fringe services to burst onto your TV screen include DBC, which will offer arthouse and independent films as part of its 12-channel pay-per-view service, The Christian Channel's six God Network religious-themed channels, and several foreign language Asian channels. More mainstream entertainment is promised by two new channels from the people

EXCLUSIVE CHANNELS

Some of the channels in Sky's digital package will only be available through digital satellite for years to come. The broadcaster has signed special agreements with the owners of around 20 stations to ensure they remain 'digital satellite exclusive'.

So you're unlikely to see the following channels on digital terrestrial or digital cable: Discovery Channel, Sky Soap, M2, VH-1, Fox Kids, Nickelodeon, UK Gold Classics, UK Arena, [tv], Discovery Animal Planet, National Geographic Channel, Discovery Travel & Adventure, Sky Travel, Living, The History Channel, Paramount Comedy Channel, Discovery Channel Timeshift, Discovery Civilisation, Discovery Sci-Trek, Discovery Home & Leisure and Cartoon Network 2.





behind the Sci-Fi Channel. 13th Street The Action And Suspense Channel, showing crime and suspense dramas, and Studio Universal – a film channel that will tap into Universal's film archives – will be launched this summer.

The Auction Channel, which has held several auctions on Sky's sports channels, plans to start a dedicated channel in late summer. It will hold an auction every day and offer documentaries and general entertainment during its six hour-a-day schedule.

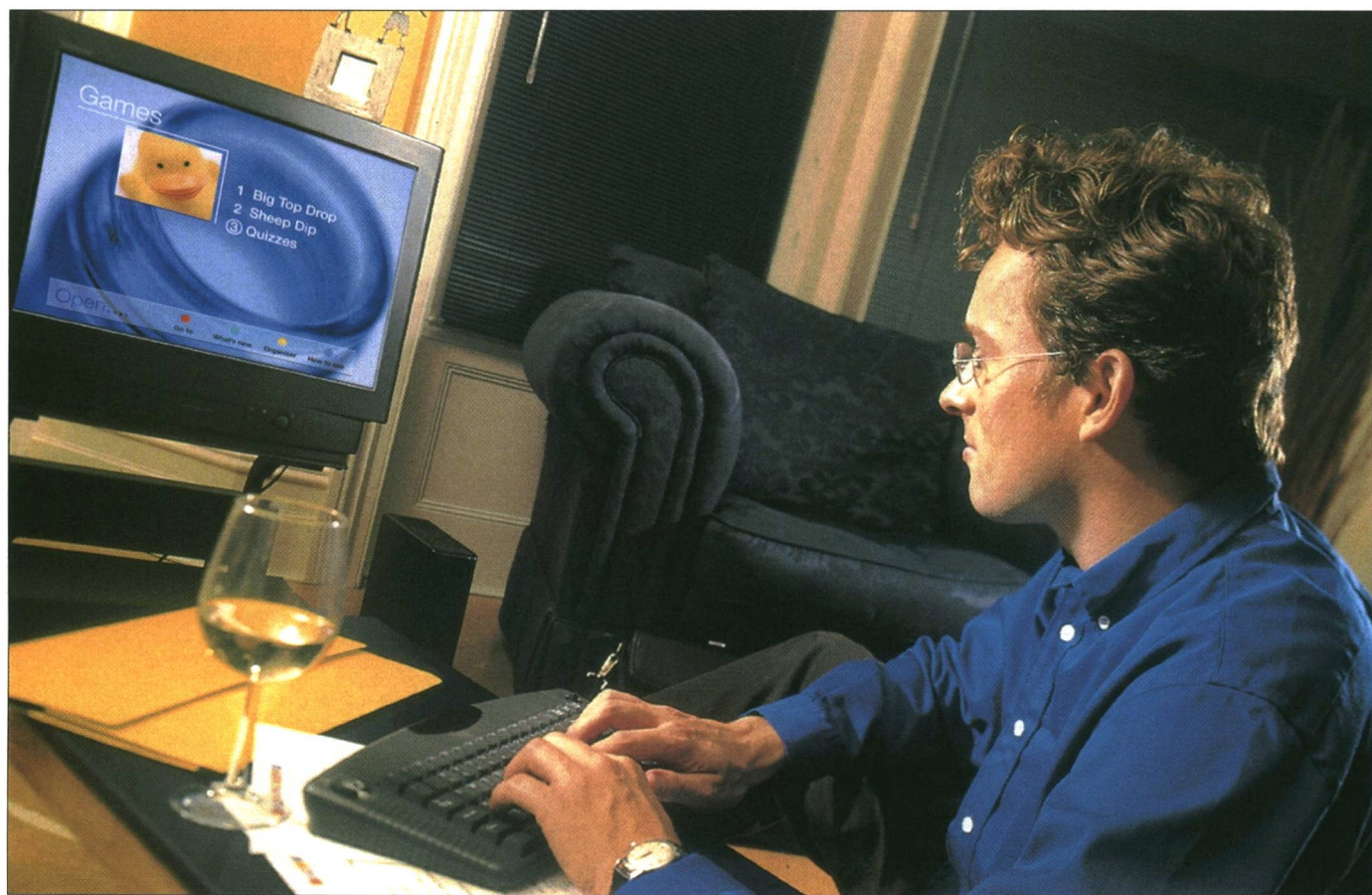
Among several US channels set to make their UK debut are Fox News, Hallmark Entertainment, BET On Jazz, E! Entertainment, CNNfn and Discovery Health Channel. For those who prefer British TV, the BBC starts its new educational service BBC Knowledge on June 1 and, will make its five radio services available on digital satellite later this year. And Welsh broadcaster S4C will debut its Nursery Channel soon.

Music fans will also get more choice when MTV starts a trio of spin-off channels in July. MTV Base, MTV Extra and VH-1 Classic will provide more foot-tapping tunes alongside Sky's existing services, MTV, M2, VH-1 and The Box.

This channel explosion shows Sky's need to out-shine rivals, ONdigital and digital cable. A flow of new services gives it the upper hand in signing up subscribers ■

COMING TO A DIGIBOX NEAR YOU...

Channel	Content	Launch date
13th Street: Action and Suspense Channel	Crime-related dramas and suspense programmes. Already launched in Germany to popular acclaim	Late summer
The Auction Channel	To be on air for six hours a day, showing one auction plus documentaries and general entertainment shows	Late summer/autumn
BBC Knowledge	Educational shows for kids and hands-on learning for adults on everything from languages to technology	June 1
BBC Radio	The Beeb's five radio stations provide a wide variety of sports, news, music and entertainment shows	Late 1999
BET On Jazz	Modern day jazz music and classic 1960s output in addition to black entertainment programming	autumn 1999
Charity Channel	Community TV station to be on air for four hours a day that aims to 'give a voice to the socially excluded'	Early July
God Network	Six religious stations from the people behind The Christian Channel. They include Christian Children's Channel, Christian Music TV, Christian Shopping, The Revival Channel, The Worship Channel, and The Catholic Channel	autumn 1999
CNNfn	Rolling 24-hour US business news channel with regular news bulletins from Wall Street and the big boys at CNN	Possibly late 1999
DBC pay-per-view	12 pay-per-view channels offering classic and independent films at between £1.99-£2.99 per showing	May/June
Discovery Health	Tips on staying healthy with features on nutrition and fitness. It will be a sister channel to the other digital Discovery channels	autumn start possible
E! Entertainment	Hollywood gossip and entertainment news with profiles on top actors, actresses and anyone who's slightly famous	Late summer/autumn 1999
Eurosport UK	UK version of the popular European sports channel. Talks between it and Sky broke down after finance rift, so it may not be offered for a while yet	No date announced
Fox News	Rupert Murdoch's glossy 24-hour US news channel is expanding across the globe and is keen to launch in the UK	No date announced
Game One	Video games channel with shows on consoles and software plus tests of the latest games and previews	No date announced
Hallmark Entertainment	Made-for-TV films and drama serials that aim to make you feel good	summer/autumn 1999
MTV Base	All dance channel delivering 'the best in R&B, rap and dance music' that is expected to replicate MTV's Dance Zone segment	July 1
MTV Extra	Identical shows to MTV, but the programming will be counter-scheduled to avoid clashing with the main channel	July 1
The Nursery Channel	Tots TV. Day-time only service with cartoons and educational programming for pre-school viewers	May
Performance	Operas, orchestral performances and documentaries on art and culture. Already a successful cable channel, now wanting to start on satellite	No date announced
Pilot TV	A channel for those just starting in the TV biz to showcase their first programmes (pilot shows) and get feedback	September
Rainbow TV	General entertainment shows for a gay and lesbian audience. Subscriptions will cost £9.99/month	Late summer
Rapture	'Hip' programmes for teenagers and young adults with an 'in your face' approach. Currently available in analogue on Astra 1 at 19.2°E	No date announced
Shalom TV	Jewish general entertainment with news and culture programming on air between 11am & midnight	Late spring/summer
Sky Box Office Widescreen	Two 16:9 versions of Sky's Box Office channels showing top Hollywood films	April/May
Sky Pubs Channel	Football news and general entertainment of interest to a pub audience. Only available to Sky's commercial subscribers	Late August
Sony Entertainment TV	Slickly presented Asian general entertainment channel with films, dramas and news coverage	summer
Studio Universal	Films from Universal Studios' huge archives	summer/autumn
VH-1 Classic	A home for the classic music hits of yesteryear	July 1
Wow TV	Ten home shopping channels offering high-end products such as homes, cars, clothes and furnishings	October/November
Zee TV Movies	Asian language films from Bollywood	summer
Zee TV Music	Asian language music and youth programmes	summer



Open for business

HOME SHOPPING AND E-MAIL WILL BE OFFERED TO USERS OF THE SKY DIGIBOX FROM THIS SPRING. BETTER SATELLITE TAKES A SNEAK PEEK AT WHAT'S ON OFFER

Open's interactive services, launching this spring, will take digital TV into a whole new exciting phase. Claiming to be 'the biggest revolution in broadcasting since television itself', Open will let viewers use their TV set rather than simply watching it.

As life gets more hectic, the pressure is on retailers and service providers to be available around the clock and accessible from home. So with Open, people can browse

and buy at their leisure – visiting their bank to check balances, looking through shops full of products and then buying the ones they want and getting them delivered to their door.

Among the companies which have already signed up are Argos, Somerfield, Iceland, Dixons, GUS and Woolworths, offering a wide range of goods from cameras and laptop computers to wine and frozen meals. First Call will supply

You'll be able to shop, play games and send e-mail (below) from your TV using Open's services



tickets for sports, theatre and music events.

Midland Bank will be the first to provide home banking services on TV – allowing its account holders to pay bills and check balances from their armchairs.

Users can even request samples of products they have seen in advertisements. Ford, Unilever and Coca-Cola will air the first interactive ads, letting viewers get more information on their products.

A number of interactive games will also be offered by Hasbro. Users will be able to play their Digibox at Boggle, Mastermind, Battleships and Trivial Pursuit. In the future it will be possible to play against other Digibox owners by making use of the modem connection.

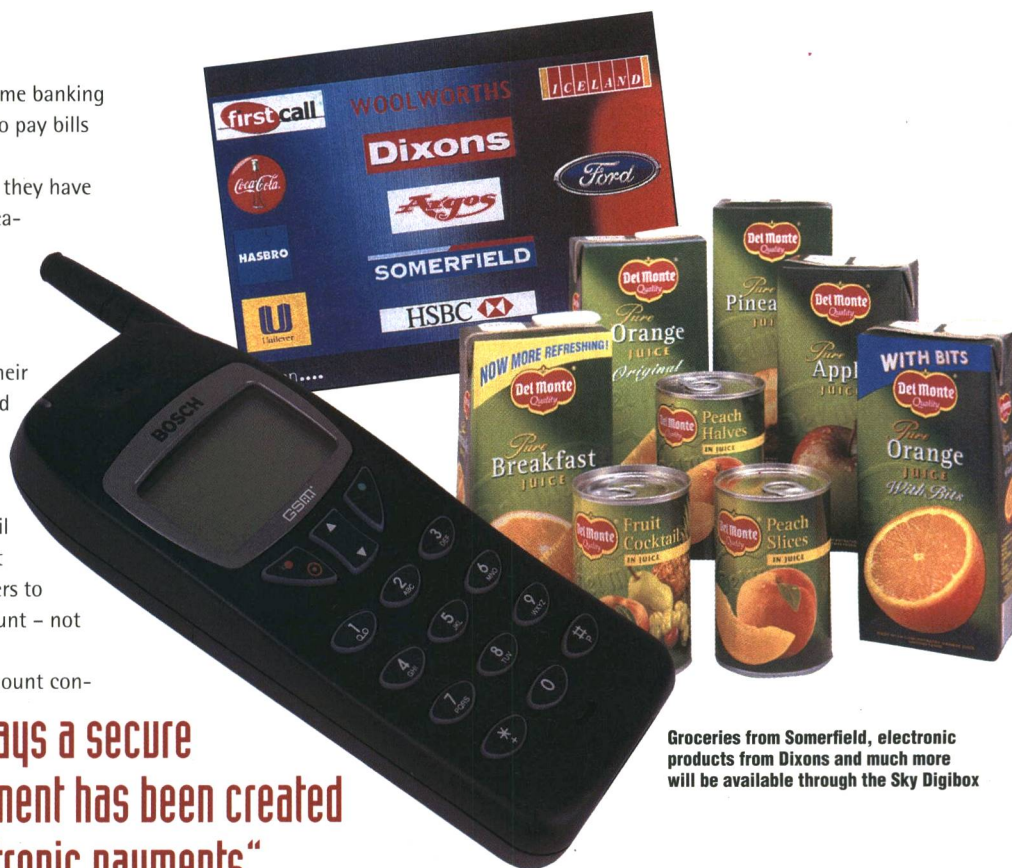
Later this year, Open will also start its e-mail services, with each Digibox having access to at least five e-mail addresses. This will enable users to send messages to anyone with an e-mail account – not just other Digibox owners.

With all of the services, security is of paramount concern. Open says a secure environment has been created for electronic payments, so that when customers give their credit card numbers, or make a financial transaction, they needn't worry about whether the information will go to the wrong account or whether it will be intercepted. Multi-level security and detailed cross-checking are in use. Furthermore, there will be security functions so that people, say parents, can restrict access.

The best thing about the whole service is that it costs nothing to use. You can play the games for free, can have free e-mail accounts, and use all the home shopping services without charge. It's only when you buy a product that you start spending money.

Open looks certain to be on everyone's lips over the next year. It promises to take the hassle out of shopping and gives you the opportunity to use more of your leisure time for the activities you want to do ■

"Open says a secure environment has been created for electronic payments"



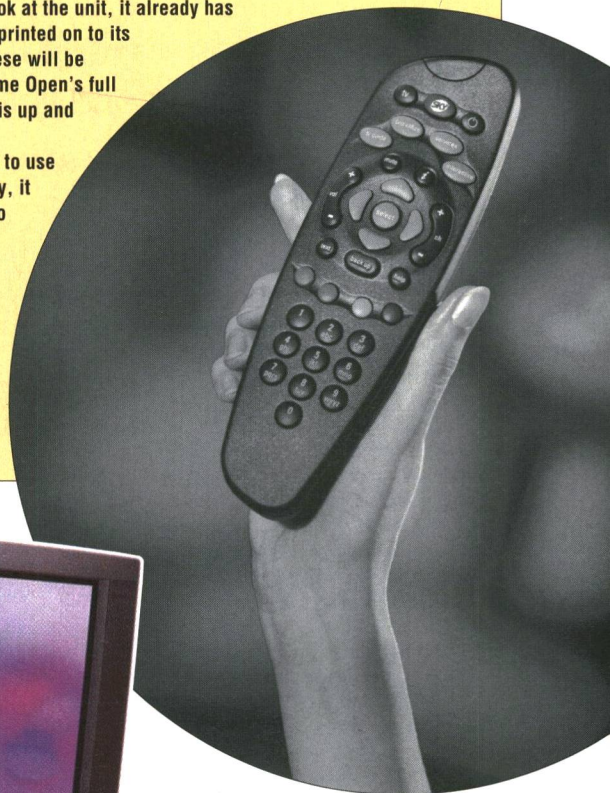
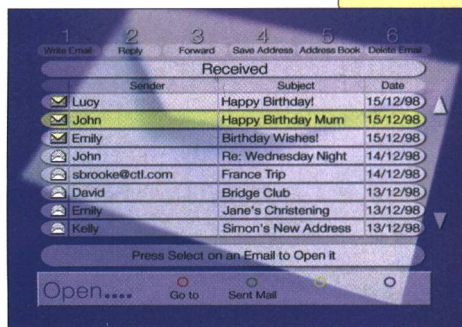
Groceries from Somerfield, electronic products from Dixons and much more will be available through the Sky Digibox

USING OPEN'S SERVICES

You will be able to operate all the Open services using either the Sky Digital remote control handset or a special infrared keyboard.

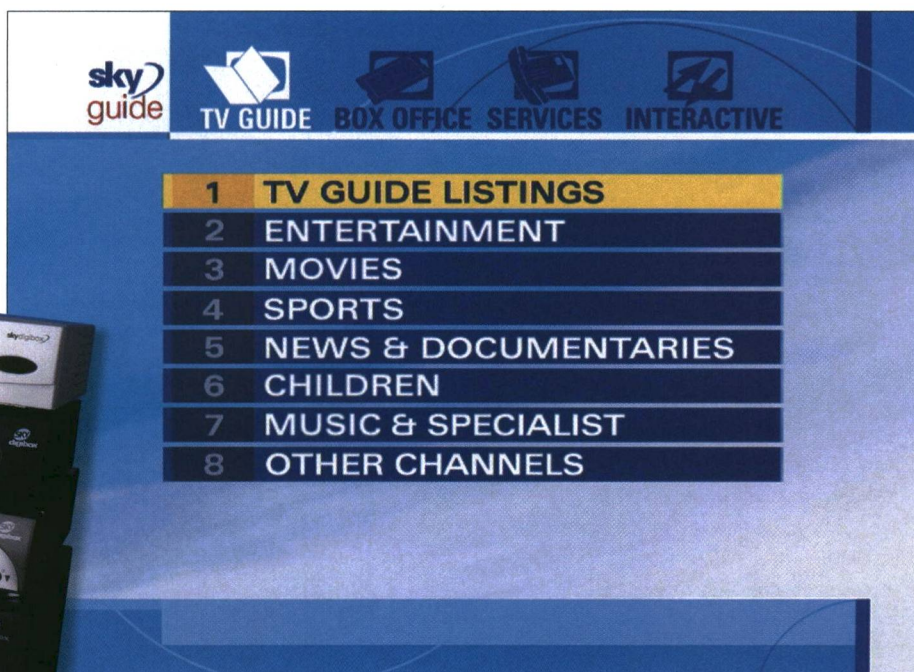
Hitting the Interactive button on your handset (below, right) gives access to the service. If you take a close look at the unit, it already has the alphabet screen-printed on to its numeric buttons. These will be operational by the time Open's full e-mail service (left) is up and running.

For those who plan to use the services regularly, it will be a good idea to spend £30 on an infrared keyboard. These units can be used anywhere in your living room because they are not connected to the Digibox. They will operate in the same way as a PC keyboard.





The five Digiboxes look different but are technically identical, all giving access to Sky's Electronic Programme Guide (right) and 170 channels



Box clever

BETTER SATELLITE PUTS THE FIVE SKY DIGIBOXES THROUGH A RIGOROUS TEST TO FIND OUT WHETHER ONE IS REALLY BETTER THAN THE OTHERS

THE COST OF GOING DIGITAL

You can buy your Sky Digital system – which comprises a Digibox with 45cm mini dish (or 60cm in the far North) plus cabling and full installation – from scores of satellite dealers. The price you pay will vary according to your individual circumstances and requirements.

Customers who are completely new to satellite can buy their system for £199, plus a one-off £30 connection fee. This price requires you to link the Digibox to your phone socket so that you can use the interactive services provided by Open. If you don't want your receiver hooked up to your phone line, you'll forgo the £167 subsidy from Open's owner, British Interactive Broadcasting, and pay £367.99 for your system.

Alternatively, if you're already an analogue Sky subscriber you can buy

your Sky Digital system for £159, plus a one-off £25 connection fee. Once again, this price includes the all-important phone connection. Existing Sky viewers who reject that also forgo the £167 subsidy, making a total of £326.99.

You'll also need to consider the cost of subscribing to one of Sky's channel packages or simply watching the free-to-air services with a BBC viewing card (available from 0870 243 8000). The details are listed in our *Subscribing To Pay Channels* section on pages 93 and 94 of this issue.



They look different from the front and rear and even

perform differently, but the five Digiboxes available in shops across the UK are technically identical.

They have the same innards and are capable of doing the same job; providing you with digital TV and audio channels, plus interactive services and electronic programme listings through the onscreen SkyGuide.

And although some of the functions – such as the full Open service, DiSEqC switching, enhanced teletext, a Common Interface module and personalised TV planner – aren't yet available, there is no reason why this should put you off buying today.

Fortunately, Sky has the ability to update your receiver via over-the-air software upgrades to provide you with future services.

Let's take a closer look at the system's main facilities. On its front panel are two card slots – one for a Sky Digital or





BBC viewing card (depending on your chosen subscription package) and another for a Mondex-style payment card (not available until late this year).

A number of front panel keys enable you to control the system's basic functions, should you lose the remote control handset.

On the rear, you'll find a single LNB input (which links up to the new mini dish), two Scart sockets for a TV and VCR, an RS232 serial interface (which will be used for attaching PCs in the future), a pair of stereo audio outputs (for linking up your hi-fi or sound amp packages like those tested later in this issue) and a metal plate covering a slot where a Conditional Access Module could be fitted in the future for unscrambling other digital services.

There's also a three-socket UHF loopthrough that lets you watch Sky Digital in another room of your house. These connectors are useful for that purpose, but for your living room TV we recommend that you link the receiver to your TV using its Scart sockets to make full use of digital's high picture and sound quality.

For older TV sets without Scarts, the UHF connections will be ample.

Setup and installation of the Digibox is carried out by the installer, but there will inevitably be times when you'll need to unplug the system and restart it; after a power

GRUNDIG GDS200

Aerodynamic looker with an average performance

It may be bulkier in design compared with the other Digiboxes, but this system has a neat wave sculpted into its black body that gives it a sleek, aerodynamic look.

The two card slots are in the middle of the panel and, when inserted, your Sky card pokes out of the slot by 1cm.

Despite this, we love the design of the 'tear drop' shaped buttons – they're the largest on any Digibox and are particularly easy to operate. Furthermore, each button has a label on it – rather than beside it – which also aids identification.

At the back, the connectors are grouped mainly on the left (although this is not nearly as bad as the Panasonic). The two

VERDICT:

DESIGN	1	2	3	4	5
PICTURE	1	2	3	4	5
SOUND	1	2	3	4	5

Scart sockets are either side of each other, while the RS232 serial port is at a right-angle in the centre. Quite why the three UHF loopthrough outputs aren't grouped together is unclear.

In terms of performance, picture output is of a similar high standard as that of its rivals, but we found the sound to be slightly sluggish when compared with the Panasonic system.



PANASONIC TU-DSB20

Basic-looking system, superb sound

Simplicity rules here. The most basic-looking of all five Digiboxes, the TU-DSB20 follows the '1980s black slab approach' with a minimalist front panel not dissimilar to a VCR.

The two card slots are on the far left of the fascia. A grooved mould helps you insert and remove them. If you have meddling kids, you might like to know that the card goes farther into the receiver than the others – it's left flush against the casing and is therefore less of a target for little 'uns.

Elsewhere on the fascia, the standby power button is on its own to the left of the LED panel, and the other eight keys are grouped on the right.

Three of these – those labelled 'i', 'tv guide' and 'backup' – are very small and fiddly to use.

The rear panel design is not particularly user-friendly either, because eight of the 10 connectors are crowded on the right-hand portion of the panel. The two Scart sockets are in the centre of the panel, and the area to the left has strangely been kept blank.

The one redeeming factor is the sound output, which we found to be the best of all five Digiboxes. Picture quality is generally of a high standard.

VERDICT:

DESIGN	1	2	3	4	5
PICTURE	1	2	3	4	5
SOUND	1	2	3	4	5



PACE BSKYB2200

Simple, well-built system, good sound

The first Digibox on the market, this system hardly stands out among the crowd for its looks. Decked out in black, it has a bulging fascia which sags in the middle.

The two card slots at the centre of the panel are particularly wide and leave your Sky card gaping out of the slot by 1.2cm – an enticement for any mischievous child. At least the black shiny buttons are a reasonable size and the labelling beside each is just readable.

The back panel, however, saves the day. Here, the layout of socketry – spread right across the panel – cannot be faulted. Each connector has been sensibly sited to make full use of the space available. The Scart sockets are in the centre and the LNB input, an RS232 port and a space for a Conditional Access Module are to the left.

And no one could sneer at the performance. Picture and sound are both unblemished, and sharp and well-detailed images are the norm. Well-balanced audio is also typical – only the Panasonic receiver beats its audio quality.

VERDICT:

DESIGN	1	2	3	4	5
PICTURE	1	2	3	4	5
SOUND	1	2	3	4	5





AMSTRAD DRX100

Classy appearance, but a middle-of-the road performer

This has to be the most stylish-looking Digibox. It boasts two silver feet and a gun-metal coloured panel on its charcoal grey fascia, and all its buttons are neatly grouped together.

But while this might look great, it does mean that the keys are also very small and so they are tricky to operate.

In addition, several of the indicators are the same shape as the buttons, which can be confusing.

The two card slots are also sited within the metallic panel and feature a small grooved step to help you pull out and insert your card.

When inserted, the card gapes out just 0.5cm from the slot.

To the rear, the DRX100 has a sensibly laid out panel with UHF socketry on the left, followed by stereo audio outputs beside them and

the Scart sockets to the right of these.

Performance-wise, it's a very middle-of-the-road system with little to make it stand out. The RGB video output is of a satisfactory quality, and the sound is not exactly striking.



VERDICT:

DESIGN	1	2	3	4	5
PICTURE	1	2	3	4	5
SOUND	1	2	3	4	5

PACE BSKYB2300

Eye-catching design with a decent AV output

You'll either love the look of this space-age receiver or hate it. Whichever side of the fence you jump, though, you have to give Pace some credit for trying something different.

This all-silver affair (available through Comet stores) tries to incorporate the best bits of the other systems and improve on the BSKyB2200 and – on the whole – it does.

The card slots have been sunk into the fascia (so your viewing card no longer sticks out quite so far when inserted) and the front panel controls have been grouped together and enlarged. It's a shame, however, that the lettering is still very small. Elsewhere, the remote eye has also been redesigned and given an oval shape to fit in with the new look.

Around the back, nothing has changed from the sister model. This is sensible because this well-spaced layout is by far the best of any Digibox.

Performance is also hard to beat. It's very similar to the BSKyB2200 – a solid all-rounder with good pictures and great sound.

VERDICT:

DESIGN	1	2	3	4	5
PICTURE	1	2	3	4	5
SOUND	1	2	3	4	5



cut, say. This is when the simplicity of the system shines through.

It comes preset with the frequencies of all Sky's digital channels, so whenever it is turned on, it automatically downloads the stations within a couple of minutes. And when new Sky channels start at 28.2°E, they're added automatically to the Digibox's channel list, owing to 'over-the-air' upgrades.

Furthermore, each Sky channel has been allocated a specific number and is grouped by genre, so it's easy for you to find it. Channels can be selected in several ways:

through the TV Guide by highlighting a required programme, by entering the specific station number, or by surfing through the line-up using the remote control's cursor keys.

When a channel is selected, a Search and Scan banner appears across the bottom third of the screen with programme title information and a list of forthcoming shows.

Among the other functions provided is teletext, which is decoded by your TV rather than by the Digibox. To use it, you have to set up the Sky remote's universal control function. Depending on your TV type, this can be far trickier than is described in the manual, because few of the remote control's buttons actually operate straight away.

You may need to repeat the process several times before all the functions – including teletext – are operational.

A parental lock, accessed through the Services screen, provides a facility for entry by PIN number only – so parents can stop children watching certain programme categories. A similar facility also lets you set spending limits, so that users of your Digibox can't buy more Box Office events than you want.

The Digibox has its fair share of quirks, but on the whole it is a user-friendly way of watching Sky's TV and audio services. And for those who take advantage of BIB's subsidy, it's affordable too ■

DIGIBOX TIPS AND TRICKS

❑ Several 'secret' channels not listed in the Electronic Programme Guide can be watched using the Digibox. Through the Services menu, access the System Setup page, then Add Channels. To watch Travel (on air from noon to midnight), enter the frequency 12.032H, symbol rate 27500 and FEC 2/3. For Chinese News And Entertainment (on air from 8pm to 2am) enter 11.758GHz/H, SR 27500 and FEC 2/3, and for CNN Radio News (news on the hour), enter 12.051GHz/V, SR 27500 and FEC 2/3. You need to select Find Channels after each one and store them separately. They will be found in the Other Channels section of the SkyGuide.

❑ You can use the Digibox with a steerable or dual-feed dish to receive some free-to-air channels from other satellite positions besides Astra 2A at 28.2°E. But you may run into problems because the Digibox has just two symbol rates, 22000 and 27500. Only channels which use these rates can be received. What's more, the receiver can only store 50 channels in the Other Channels section of its menu. We recommend that your Digibox is pointed at 28.2°E overnight because Sky tends to send out most of its over-the-air receiver software upgrades in the early hours.

❑ If you order a pay-per-view film or event from the digital versions of Sky Box Office and then find that you don't have time to watch, you don't have to worry about being charged. Provided that you don't select the channel on which the event would have aired, your Digibox will cancel the booking for you.

DIGITAL 2000

21st Century Today

The Gemini Digital Receiver

- DVB Common Interface compliant
 - MPEG digital and DVB-S compliant
 - Support analogue and digital reception within single receiver
 - 1000 channel memory function
 - 2.45 Msymbol/sec and 900-2150Mhz
 - NTSC and PAL compatible
 - 3 SCARTS and PLL RF modulator
 - 16 colour graphic user interface
 - Teletext via VBI
 - 90 - 240V free-voltage power supply
 - CAS (Viaccess, Nagravision, Conax) ready
 - IT610S
- Without analogue reception



A full range for all your digital satellite needs including:

Conax Cams, Cryptoworks, Via Access, Media Guard and Irdeto common interface

Trade & Retail enquiries welcomed, Export specialists

Stockist of AB Sat cards, Showtime, Multichoice South Africa

NEW INTERNET VIA SATELLITE

PC Board to fit most PCs allows you to view satellite on your PC and also access Internet via Satellite from Eutelsat 13 degrees East. Board will support a Via Access card, subscription is required for the Net.

DVD Players and Discs - Ask (Mod Kits Available)

New Little Fingers Keyboard

New to the UK exclusive to DIGITAL 2000, the New Little Fingers Keyboard, Ideal for children of 3 Years+ interfaces with any Mac or Windows PC

Phone 01132 264000 or Fax 01132 264001

Phone 01257 471204 or Fax 07070 716504

Email digital2000@provider.co.uk

Supplied exclusively to Digital Sales, Chip House,
Byron Crescent, Coppull, Lancashire PR7 5BE
Microtec, 314 Harehill Lane, Harehills, Leeds LS9 7BG

SERVING CUSTOMERS FROM AROUND THE WORLD, MIDDLE EAST SPECIALIST

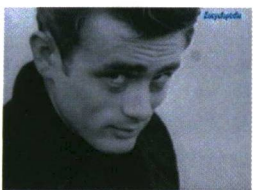
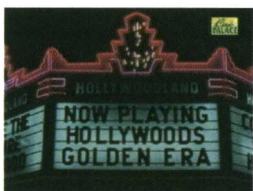
21st Century Today



Monster size



A number of CAM modules are available (above) that can be slotted into a CI receiver to watch pay channels (below)



A COMMON INTERFACE RECEIVER LETS YOU TUNE INTO FREE-TO-AIR DIGITAL CHANNELS AND ALSO KEEPS YOUR OPTIONS OPEN FOR WATCHING EUROPEAN PAY-TV PACKAGES TOO. MARK NEWMAN EXPLAINS

If the booklet on the front of this magazine has whetted your appetite for free-to-air digital channels, you are probably considering your next step.

There are budget-priced free-to-air digital systems available which can give you access to all 700 channels, but another option is buying a Common Interface digital receiver.

These systems not only give you the free-to-air channels, but can also provide you with pay-TV packages too. Premium sports coverage, Hollywood blockbusters and X-rated erotic fare are just a few of the programming types available from the numerous pay-TV packages broadcasting in continental Europe.

Although these services are targeted at viewers outside the UK, you can receive them in your living room, as there are now a number of dealers selling official viewing cards for services from Italy, Spain, France and Scandinavia, to name but a few.

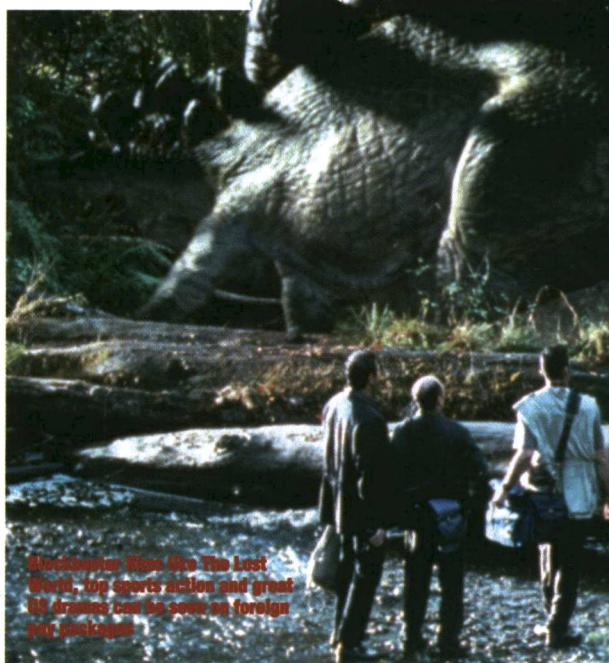
Because these are pay-packages, they are encrypted and you require a special digital receiver to unscramble them. Among the encryption formats currently in use are Viaccess, Conax, Irdeto, Nagravision, Cryptoworks and Videoguard.

To unscramble a particular encryption format, your digital receiver needs to have a suitable Conditional Access Module (CAM).

So, for example, to watch Canal Plus Scandinavia (which uses Conax encryption) you require a receiver with a Conax CAM.

You can buy digital receivers with embedded CAMs, but these systems generally limit you to watching one pay-TV service. It makes much more sense to get a receiver that lets you keep your options open and watch several pay-TV packages.

And this is where Common Interface receivers enter the picture. These ingenious systems have one or two



Blockbuster films like *The Lost World*, top sports action and great US dramas can be seen on foreign pay packages

PCMCIA-type slots – known as Common Interface slots – built into them. They enable you to insert plug-in CAM modules.

You can buy a CAM of your desired type (Viaccess, Conax, and so on) and then insert it into the receiver to make it able to receive the pay-TV package you want to

DIGITAL PAY-TV PACKAGES

You can watch a number of digital satellite packages using a Common Interface digital receiver – if you also buy a Conditional Access Module and a suitable viewing card. Here is a run-down of what's available, the equipment you'll need and approximate costs. Note that viewing card prices are for annual subscriptions and that many packages require you to pay a joining fee.

CANAL DIGITAL NORWAY (THOR, 1°W)

Twenty-seven Scandinavian channels are available, giving plenty of explicit late-night adult programming and lots of English language shows and sport. You require a £120 Conax CAM module and a viewing card costing £290-£430.

DF-1 (ASTRA, 19.2°E)

German service consisting of about 50 TV channels and 35 audio stations, including US networks Hallmark Entertainment and 13th Street: The Action and Suspense Channel. You need an Irdeto CAM (unavailable as we went to press but expected on the market by late April) and a DF1 viewing card costing between £250 and £550.



choice!



watch. Note that the modules are made with a card slot onboard, so you will need to buy a viewing card to fully unscramble the pay-TV service.

You can buy an ever-growing range of CAM modules and cards, but they are expensive (see our table for details).

You should also note that these plug-in CAM modules are not available for all encryption formats just yet. There is, for example, unlikely ever to be a CAM released for Videoguard (used by Sky Digital) and there's also no module available for Nagravision (used by Spanish TV packages) just yet.

But if you want the very best entertainment beamed into your home, or are just interested in seeing premium channels from other countries, then one of these receivers could be right for you.

Over the next few pages we test the best Common Interface receivers on the market.

These systems provide you with free access to the 700 or so free-to-air channels (you don't need a CAM or viewing card to watch them), and also keep your options open for the future, should you wish to watch a continental pay-TV service ■

COMMON INTERFACE RECEIVERS

Digiquest P1000	£429
Digiquest P1000 VA	£349
Gemini IT610S	£309
Manhattan ST-2000CI	£349
Nokia Mediamaster 9600S	£350
RSD ODM 300CI	£299

CANAL DIGITAL SWEDEN (THOR, 1°W)

Twenty-six Scandinavian channels are available, giving plenty of explicit late-night adult programming and lots of English language shows and sport. You require a £120 Conax CAM module and a viewing card costing £270-£400.

MULTICHOICE HOLLAND (ASTRA, 19.2°E)

Consists of 17 channels, including general entertainment channels SBS6 and Veronica, which feature lots of English language programming. You require an Irdeto CAM (which were unavailable as we went to press but are expected on the market by late April) and a viewing card costing £160.

AB SAT FRANCE (HOT BIRD, 13°E)

Twenty-two French channels including the excellent classical music channel Musique Classique and documentaries station Encyclopaedia. You require a Viaccess CAM costing £130 and a viewing card that costs £340.

TPS FRANCE (HOT BIRD, 13°E)

Almost 50 channels are on offer, including TF1, TF2 and France 2. Mainly French language programming, though some other Euro channels are offered too. You require a Viaccess CAM costing £130 and a viewing card that costs £300-£380.

NTV RUSSIA (HOT BIRD, 13°E)

Four Russian language channels with more on the way. Includes news, films and drama from Russian networks NTV Nase Kino and the World Russian Channel. You require a Viaccess CAM costing £130 plus a £165 six-month viewing card.

WIZJA TV (ASTRA 19.2°E)

Polish service providing 20 channels in local language. Includes HBO Movies and BET On Jazz. You require a Cryptoworks CAM (which were unavailable as we went to press, but which are expected on the market by mid-April) and a viewing card costing £430.

HRT CROATIA (HOT BIRD, 13°E)

Three TV channels and three radio channels in Serbo-Croat are available. Consists of lots of news coverage and general entertainment programming with very little English content. You need a Viaccess CAM costing around £130, plus a viewing card costing £200.

SATISFACTION CHANNEL (HOT BIRD, 13°E)

Hardcore porn channel offering a wide range of European and US erotic programming. You require a Viaccess CAM costing £130 and a £200 viewing card.

BUYING TIPS

Helpful hints when buying Common Interface digital receivers:

☐ You need a Conditional Access Module (CAM) and viewing card to watch pay-TV packages mentioned in the table below.

Remember to add the cost of this to the receiver price when you are buying a receiver.

☐ Buy official viewing cards only. There are 'pirate' digital cards available at low prices, but these often work for several months only rather than a whole year because they can be switched off by broadcasters.

☐ Do not buy one of these receivers to watch Sky's digital channels. There is no Videoguard CAM available to slot into the receivers to unscramble its services and there is no guarantee that one will be available in the future.

☐ You can use these receivers to watch the hundreds of free-to-air digital channels available (as featured in the booklet with this issue). You do not need to buy a CAM or viewing card to watch these channels.

☐ Remember that there are digital channels on other satellites besides Astra 19.2°E, but make sure you get a receiver with a variable symbol rate and forward error correction range. Some of the channels have unusual tuning parameters.

☐ Ensure you have a universal LNB on your dish. These are essential for receiving digital channels, because many of the stations are transmitted in the higher frequency bands.

☐ Ask the dealer whether a specific CAM module will operate with your receiver.



Digiquest P1000 VA

Arguably the best specified system in this group test, the snappily named Digiquest P1000 VA CI (or Humax F1 VA CI as it's also known) has two Common Interface slots and an embedded Viaccess CAM.

All this makes it ideal for those viewers wanting to watch Viaccess pay-TV services such as Satisfaction Channel and the French bouquets in addition to other pay packages.

On the front panel behind a drawbridge-style flap, the two CAM slots and single slot for a Viaccess cards are hidden away from meddling youngsters. In our tests we found the system was quick to switch between the two

CI slots and viewing card and also fast to recognise which of these it should use to decode relevant channels.

To the rear is an array of socketry which is identical to

that on to the Digiquest P1000. There are two Scart sockets for a TV and VCR, three phonos for stereo audio and video, a UHF loopthrough and a nine-pin RS232 port for linking up your PC. A single LNB input and an LNB loopthrough are also for provided.

You can easily operate the receiver as part of a multi-satellite setup by using the 0/12V switch output (for triggering LNB switches), and the DiSeqC facility, which enables the machine to control up to eight LNBs. This is all set up using the installation menu and the remote control hand-

set. The handset provided with the P1000 CI Viaccess is a slightly wider unit than that provided with other Digiquest receivers. This leaves room for slightly larger buttons and means there's more space in between each one.

Once the settings have been stored, you can check them using the Signal Strength Meter. If all is fine, the receiver can begin searching for channels. It's a shame that the menu does not tell you which channels have been located during this 10-20 minute procedure for each satellite. Instead, you get a blank screen that tells you which frequency it is searching.

Once the search is complete, a list of all TV and audio channels is provided in bouquet order. This can be re-sorted into any order you require. It's usually a good idea to delete any scrambled channels you cannot watch because they use up memory space.

That said, about 1,200 channels can be stored, including SCPC channels, owing to the wide 2000-31000 symbol rate range (it's very slightly narrower than the other Digiquest models). However, only 10 PID figures can be manually entered and stored by the receiver.

The features line-up includes an EPG, a PIN-operated parental lock, and a teletext function (operated using your existing TV remote). But it is those two Common Interface slots and one Viaccess slot which are the real attractions. The manufacturer says they enable you to watch channels using Viaccess, Nagravision, Conax, Cryptoworks and Irdeto encryption when used with a suitable viewing card and CAM.

This receiver really does seem to have it all. Its great performance and a tempting price make it well worth a close look ■



'Great performance and a tempting price make it well worth a close look'

DIGIQUEST P1000 VA

Price: £429

Features: Two CI slots, Embedded Viaccess, 2000-31000 symbol rate range, switchable FEC rates, EPG support, digital teletext, DiSeqC switching
Sockets: One LNB input, LNB loopthrough, two Scarts (for TV/VCR), stereo audio, RS232 serial port

Contact: Turbosat (0171-537 1010)



Two CI slots with Viaccess, and a user-friendly menu



Limited PID entry

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5



Nokia Mediamaster 9600S

This was the first Common Interface digital receiver to be launched in the UK and although it is now 18 months old and due to be superseded by Nokia's 9800S shortly, it is still worth considering.

The system is simple to use, very flexible in the range of channels it can receive and is also affordable, following a string of launches from rival manufacturers; this has pushed prices down to £350.

The front panel is bare except for a plastic window that hides the LED display and shows the channel name when you're watching a show. The central section of the receiver folds down to reveal a panel of buttons for basic power and channel up/down controls – and the single Common Interface slot.

The back panel has a single LNB socket, stereo audio outputs, a 0/12V switching output, three Scart sockets for a TV, VCR and an existing receiver, plus SCSI and RS232 interfaces. There is no UHF loopthrough, so you will need to have a TV with a Scart socket to use it.

Eight different arrangements of LNBs can be defined in the menu, where you can specify a satellite name, LNB local oscillator frequency, and both the status of the 0/12V switch and DiSEqC control. Because the system does not cater for sharing an LNB with an analogue receiver, you will need a gizmo such as Global's Smart Priority Switch to operate the two.

Once installed, the receiver goes channel-hunting using its automatic search facility, which finds SCPC channels (owing to the wide 1000–45000 symbol rate range) and also soft scrambled sta-

tions (due to the users' option of manually inserting PID figures. In excess of 1,000



channels can be stored. These are then selected either by number, by stepping through them in order, or by highlighting the one you want in the menu listing. The name of the channel is automatically displayed and the name and nature of the current and next programme can be called up too. In addition to these electronic programme guide (EPG) functions, there's also proper digital teletext.

Performance from the 9600S is certainly up to the high standards that we all now expect from digital TV, with excellent picture quality showing lots of fine detail and vibrant colours, and a sonorous audio output with crisp trebles and a solid bass.

Another attraction for enthusiasts is the wide availability of PC software on the Internet for controlling and updating the 9600S's channel line-up. Many websites offer free software downloads which mean you don't have to keep running channel searches to receive all the channels available.

When all is considered, the 9600S is an excellent receiver. If you don't mind the omission of an LNB loopthrough and UHF sockets, this could be the system for you. It's simple to use and has the ability to receive almost every digital channel in the skies above Europe ■

'It's simple to use and has the ability to receive almost every digital channel in Europe'



NOKIA MEDIAMASTER 9600S

Price: £350

Features: One CI slots, 1000-45000 symbol rate range, switchable FEC rates, EPG support, digital teletext, DiSEqC switching

Sockets: One LNB input, three Scarts (for TV/VCR/Aux), stereo audio, RS232 serial port

Contact: Nokia (01793 556000)



Simple to use, lots of features and a good price



No LNB or UHF loopthrough sockets

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5



Manhattan ST-2000CI

'The receiver had no problems in sensing which CI slot and CAM is required to unscramble pay channels'

A smart and sturdily built system, the ST-2000CI shares the good looks of its sister product, the ST-1000. Housed in a black casing with gold lettering, the system's front panel has seven buttons for controlling basic functions, while the long LED panel displays channel number and other information.

Turn to the rear, though, and you'll notice just how this receiver differs from the earlier model. At the centre of the panel are two Common Interface slots that let you slide in CAM modules for watching pay-TV packages.

Alongside these are TV and VCR scart sockets, a UHF loopthrough, a PAL I/G switch (handy for viewers who want to use the system on the Continent), stereo audio outputs (great for hooking up to hi-fi systems and sound amplifiers), a video phono output, and an S-video socket.

A single LNB input is provided with a loopthrough for attaching your analogue receiver, and there is also an

RS232 serial port for linking up a PC and a high-speed SCSI data port. For those who intend to make use of the system's multi-satellite capabilities, a 0/12V output is also provided for controlling an LNB switch.

Setting up the ST-2000CI is a quick and hassle-free process, thanks to the installation menu's list of setup options, which enable you to control 16 LNBs and operate numerous combinations of switches (DiSEqC, 22kHz, 60Hz or tone burst). Once stored, you can allocate a satellite position to each of the LNBs or, by using an

external positioner, move your dish across the sky to download channels from several positions.

This receiver is ideal for technophobes who are just getting into digital satellite TV, because it comes pre-programmed with the channel bouquet details from 30 or so of Europe's main satellites. This means you don't have to enter the frequency, symbol rate, polarity or forward error correction figures before starting an auto channel search. The receiver has the information stored in its database and by starting an Express Search it finds the channels for you.

Those who want more control over the parameters can skip this facility and start a manual channel search instead. Because the ST-2000CI has a wide 2000-45000 symbol rate range, it can store both MCPC and SCPC channels, and its manual PID entry facility gives you the option of viewing soft-scrambled channels. Two lists of TV and radio channels are provided (1,200 in all) and the order can be altered as you require, using the user-friendly 'drag and drop' facility.

The Common Interface slots are the main attraction, though. And in *Better Satellite's* tests, we found the receiver had no problems in sensing which CI slot and CAM is required to unscramble pay channels, but it can be slow to do this. It is to be hoped that a software upgrade will correct this.

Our other gripe is with the remote control, which has keys that are too close together and are too small. For many people, though, this will be a minor drawback. The balance is redressed by other features, including an excellent EPG, teletext (accessed through your TV remote) and a parental lock (to block both programmes and menu pages). The ST-2000CI therefore is recommended ■

MANHATTAN ST-2000CI

Price: £349

Features: Two CI slots, 2000-45000 symbol rate range, switchable FEC rates, EPG support, digital teletext, DiSEqC switching

Sockets: One LNB input, LNB loopthrough, two Scarts (for TV/VCR), stereo audio, RS232 serial port, SCSI port

Contact: Eurosat (0181 452 6699)



Very easy to use, two CI slots, lots of features



Slow CAM switching, poorly designed remote control

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5





Digiquess P1000

Originally the Humax F1-CI, this receiver was renamed the Digiquess P1000 and is generally regarded as being the first budget Common Interface system on the market. A smart-looking system, it has a charcoal-coloured casing and a four-digit LED panel which runs across three-quarters of the fascia. A trio of embedded buttons is provided for controlling basic functions such as channel-changing and standby power.

On the right side of the fascia, behind the drawbridge-style flap, is the main attraction. Two Common Interface slots are provided for you to insert Conditional Access Modules. This allows you to watch two pay-TV packages using different conditional access formats – and you never have to change over the CAM modules.

In *Better Satellite's* tests, the P1000 automatically switched between CAMs in a matter of seconds, so no time-consuming manual operations were needed when several CAMs were in use. Similarly, if just one CAM was inserted, the receiver read the CA type and decoded the relevant channels when selected.

The receiver is again well-equipped at the back. There are two Scart sockets for a TV and VCR, three phonos for stereo audio and video, a UHF loopthrough and a nine-pin RS232 port for linking up your PC. A single LNB input is alongside an LNB loopthrough for operating your existing analogue receiver. Using the receiver as part of a multi-satellite setup is also helped by the inclusion of a 0/12V switch output for triggering LNB switches and, because the system also has

integrated DiSEqC switching, it can control up to eight LNBs or eight dishes. This facility is controlled through the setup menu – a well-designed set of pages. Eight configurations of LNBs can be defined and a satellite name allocated to each, along with the local oscillator settings, the status of the 0/12V switch and DiSEqC.

After these settings have been stored, the receiver is ready to search for channels. This lasts for 15–20 minutes when your dish is pointed at Astra. More than 1,000 channels can be stored, including SCPC channels (owing to the wide 2000–32000 symbol rate range). Although the P1000 is only able to store 10 manually inserted PID figures, this is not such a major drawback because it automatically finds most PIDs during the Channel Search.

Once the installation is complete, a list of all the stored TV and audio channels is provided in bouquet order. This can be rearranged as required.

Among the other features is an EPG, a PIN-operated parental control which lets you block programmes and the menu itself. There's also a teletext function, controlled from your TV remote.

This is an excellent receiver which is well-equipped for watching free-to-air channels and, when you buy a suitable CAM and viewing card, a large number of digital pay-TV packages ■

'Well-equipped for watching free-to-air channels and a large number of digital pay-TV packages'



DIGIQUEST P1000

Price: £349

Features: Two CI slots, 2000–32000 symbol rate range, switchable FEC rates, EPG support, digital teletext, DiSEqC switching

Sockets: One LNB input, LNB loopthrough, two Scarts (for TV/VCR), stereo audio, RS232 serial port

Contact: Turbosat (0171-537 1010)



Two CI slots, a user-friendly menu and plenty of features

Restricted manual PID entry

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5



RSD ODM300CI



Scottish company RSD has long been associated with top-quality D2-Mac decoders and has spread its expertise into the digital arena with its ODM300 free-to-air system. Now it's back with a follow-up receiver that boasts a Common Interface slot for reception of pay-TV packages and an even better line-up of features. Amazingly, the price tag is just £299.

At first glance, you might think the ODM300CI differs little from its predecessor. It has the same LED panel displaying channel number in big bold characters and the same three buttons for channel changing and standby power. Turn the system round and the improvements are evident.

The single CI slot is on the left of the panel, next to two F-connectors (the upper one is an LNB input and the lower one is a loopthrough for attaching an analogue receiver). There is also a pair of Scart sockets for a TV and VCR, stereo audio outputs, a UHF loopthrough and a manually

adjustable UHF tuning screw (adjustable between channels 30-45).

There are also two RS232 serial ports. One lets you hook up your PC to the receiver to download software upgrades from the Net and use the superb RSD Edit software, and the other is for attaching an external modem to order pay-per-view films and events, such as those offered by Scandinavia's Canal Digital.

Setup procedure for this system is even faster than it was for the original ODM300. From the LNB menu, you select one of the pre-set LNB frequency settings (which include C-band types) or manually enter the low and high band local oscillator frequencies of your LNB and choose from several 22kHz switching and DiSEqC options.

After you've manually entered the frequency details for one digital bouquet, the receiver is ready to start a channel search. One of the new features in this menu is the auto symbol rate function – which means you no longer have to trawl through frequency listings to find that all-important figure. The receiver will find it for you.

Because the receiver uses the excellent Astra Service Information Update System (ASIUS), it's able to search and find all the digital channels at Astra 19.2°E in seconds rather than the 20-30 minutes taken by many other digital receivers. Once you have downloaded the channels from receivable satellites, they can be sorted by name, satellite or encryption format for fast access in future.

Like the ODM300, this receiver lets you manually insert PID figures for watching soft-scrambled services, and its wide 2000-45000 symbol rate range means that both MCPC and SCPC channels can be received. There's also an Electronic Programme Guide function (which provides a description of the programme you're watching whenever you change channel) and digital teletext.

Our only gripes with the ODM300CI are the location of the CI slot (you'll need to crane round frequently to the rear panel to insert CAM modules) and the choice of grey and white blocks in the onscreen menu (if you're using the receiver in the half-light of your living room it can lead to

confusion about which function you have selected). Still, for those who want to watch free-to-air channels and have the option of watching pay-channels, this receiver is well-equipped ■

RSD ODM 300CI

Price: £299

Features: One CI slot, 2000-45000 symbol rate range, switchable FEC rates, EPG support, digital teletext, DiSEqC switching

Sockets: One LNB input, LNB loopthrough, two Scarts (for TV/VCR), stereo audio, two RS232 serial ports

Contact: RSD (01786 450572)



Cheap, plenty of facilities and fast to find channels



CI slot is on the rear, poor menu colours

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5





Gemini IT610S

Gemini makes its UK debut here with the IT610S, a dual-format system capable of receiving not only free-to-air analogue and digital channels, but digital pay-channels too, thanks to its two Common Interface slots. It comes at the bargain price of £309.

With an 'aerodynamic' grey casing and smooth rounded edges, it's a neat-looking system. The front panel's seven buttons are located either side of a four-digit LED display, while on the right the pair of CI slots are sensibly located behind a flap. To the rear is a decent line-up of connectors. There are three Scart sockets for a TV, VCR and auxiliary device (say, an analogue D2-Mac or Videocrypt decoder), plus an RS232 data transfer port (for linking up a PC) and the usual UHF loopthrough and stereo audio outputs.

A 0/12V switch is provided for controlling LNB switching units, and there's also a video synch socket and both a single LNB input (tuneable between 920-2150MHz) and a non-operational LNB output.

The unit can be installed through the menu pages, and it is controlled using a 28-button remote control unit (some of the keys are rather smaller than we'd like). These

pages look more akin to Apple Mac computer windows and are not the easiest of screens to follow.

In the Install Antenna menu you can either enter your LNB's local oscillator settings or simply select universal, then choose one of the preset satellite positions (or add a new one) and activate the Auto Installation feature, which scans the transponders already stored in its memory.

If you have several LNBs on your dish you can also make use of the DiSEqC facility to scan all available satellite positions in one go. But be warned – this could take ages. In our tests the receiver was very slow to scan for channels – taking 25 minutes to scan 13°E and 30 minutes at 19.2°E.

A list of up to 1,000 TV and radio channels is provided. These channels can be sorted in any order using the

Move To function – and this includes SCPC channels due to the symbol rate range of 2000-30000. You can enter PID figures to receive soft-scrambled channels. And there's also a parental lock, teletext (VBI inserted so you use your TV remote), a basic EPG, and a 12-event/year-long timer.

The analogue side of the system is accessed by pressing the analogue TV/radio buttons on the handset and adjusted using the same menu. There are two IF bandwidth settings for 18 and 27MHz plus a PAL/NTSC switching facility if your TV supports it. In addition to Wegener noise reduction, there are de-emphasis settings for 50µs and J17.

Analogue output is almost as good as the digital performance, with sharp images and clear audio. The Gemini IT610S therefore appears to be a high-end system for a low price. One of the drawbacks with a system such as this is that most folk already have an analogue receiver and will not want to pay extra for the analogue facilities. But Gemini has set the price accordingly at £309 ■

'With an 'aerodynamic' grey casing and smooth rounded edges, it's a neat-looking system'



GEMINI IT610S

Price: £309

Features: Two CI slots, 2000-30000 symbol rate range, switchable FEC rates, EPG support, digital teletext, DiSEqC switching

Sockets: One LNB input, three Scarts (for TV/VCR/Aux), stereo audio, RS232 serial port

Contact: Microtec (0113 2264000), Digital Sales (01257 471204)



Two CI slots with analogue functions too



Poor menu design and fiddly remote control buttons

VALUE FOR MONEY
FEATURES
PERFORMANCE
EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5



CONCLUSION

If you fancy watching the 700 or so free-to-air digital channels that are available and also want to keep your options open for receiving pay-TV services in future, then choosing of these Common Interface receivers is a sound idea. It's always better to spend a little more at this stage on a slightly better-specified system than make false economies by spending as little as possible now and then having to fork out several hundred pounds on a new receiver in a few years' time.

We've reviewed the top Common Interface receivers to give you the best information.

The first system we tested was Gemini's IT610S, which has two Common Interface slots and also the ability to receive analogue channels. It's a well-specified system that offers the features you need to watch digital pay packages, but it is let down by a poorly designed menu pages and also a fiddly remote control unit.

Digiquet's P1000CI VA seems to have it all. It has a pair of Common Interface slots and an embedded Viaccess CAM which make it perfect for those wanting the French pay-channels and others. We found the system easy to use and set up. Its only drawback seems to be limited manual PID entry, so it can't might not get some channels with unusual tuning parameters.

There are no such problems with Nokia's Mediamaster 9600S. It's simple to use, has heaps of features (including the widest symbol rate range of any receiver) and boasts three Scart sockets on its rear panel. It has 'just' one Common Interface socket and it lacks an LNB loopthrough for linking up your analogue receiver and a UHF loopthrough for attaching the system to a TV without a Scart socket.

Connectivity is no problem with Manhattan's ST-2000CI. It has a full line-up of sockets on its rear panel, including two Common Interface slots. We found it easy to use and noted that it is ideal for beginners or enthusiasts who don't want the hassle of finding frequency information. But it's a shame that the CI slots are on the rear panel, where you have to crane around to reach them, and we found the receiver can be slow at switching between them.

The second Digiquet tested was the P1000 – another system with a pair of Common Interface slots. Like its sister, it is easy to install and use on a daily basis. One of its limitations is the restricted PID entry. It's also worth noting that some users have problems using Cryptoworks CAMs with the system. But other CAMs work perfectly with it.

The final one is RSD's ODM300CI, a well-specified system with frills not found elsewhere. It is the fastest receiver when searching channels from Astra, it has a unique auto symbol rate feature (which cuts the time you take to find channels) and it has a second RS232 port for an external modem. Shame it suffers from a poorly designed menu and a rear CI slot ■



Digiquet P1000CI VA: want French channels?



Nokia Mediamaster 9600S: heaps of features



Manhattan ST-2000CI: ideal for beginners



Digiquet P1000: easy to install and use

BRADLEY WOOD – satellite tv for Europe

Order direct via our website – www3.mistral.co.uk/bradleyw

DIGITAL RECEIVERS/DECODERS

XCOM CDTV350.....	£499
Digiquet F1.....	£299
Digiquet F1CI.....	£359
Digiquet P250Va.....	£299
Digiquet Vaci.....	POA
Nokia 9200.....	£349
Nokia 9602S.....	£399
Nokia 9800.....	POA
MANHATTAN ST2000CI.....	£349
Viaccess Cam.....	POA
Irdeto Cam.....	POA
Crypto Works.....	POA
Cams available	



CONAX CAM
(only available with Canal Digital Norway or ViaSat Scandinavia)

skydigital



CANAL+

Spain, Holland, Norway, Sweden and Poland available

£7.99 per month + Joining fee

SCT £199.00

CANALSATELLITE NUMERIQUE



CANAL DIGITAL



CANAL+ CYFROWY



We are able to provide genuine original viewing cards for all of the above and following:-

OFFICIAL DIGITAL CARDS

DF1.....	from £249*	Canal Satellite	
Canal Plus Norway.....	from £289*●	Numerique.....	from £159■
Canal Plus Sweden.....	from £269*●	Telepiu Italy.....	POA
ViaSat Scandinavia.....	from £269	Showtime.....	from £369
Multichoice Holland.....	from £159	Via Digital Spain.....	from £289 ●
ABSat France.....	£339*	Canal Digital Spain	
T.P.S. France.....	from £299*●	full card.....	from £329*●
Cyfra Plus Poland.....	£399*●	Multichoice Greece.....	soon, POA
Wisaj.....	£429*■	Satisfaction Club Digital.....	£199
NTV International.....	£165 for 6 mths	TSR/TSI/Sf.....	£249
NTV Plus.....	£299*	HRT Croatia.....	£199*
Canal+ France.....	from £159■		

(Some subs require an initial joining fee and or mandatory receiver/CAM)

PLUS

Analogue IRD's, MAC decoders, Official MAC cards (Scandinavia), Secam/Pal, LNB's, Dishes, Cable, Polar mounts, Positioners, Tripod stands, Wall mounts ... and much, much more

We only supply genuine original brand new digital cards

CHEQUES & INTERBANK TRANSFERS IN EURO



(All enquiries except Sky)
Telesales: (+44) 01903 730615/724844

Mon-Fri 9 am-5 pm/Sat 9 am-1 pm

Sky enquiries: Technical/billing/after sales

(+44) 07074 737363

Email: bradleyw@mistr.co.uk

NO FRILLS. NO GIMMICKS – MAIL ORDER ONLY
31 Beach Road, Littlehampton, West Sussex BN17 5JA



Watch TV on your PC

WATCHING SATELLITE TV ON YOUR COMPUTER NEEDN'T BE DIFFICULT OR EXPENSIVE. ALAN YOUNG LOOKS AT SIX KITS THAT MAKE IT POSSIBLE

Falling PC prices, free Internet services and the launches of ever-more powerful software packages are tempting millions of us to buy computers to use at home.

And although surfing the web, playing games and creating artwork may be entertaining, some users are frustrated that they can't also fit in enough time to watch satellite TV.

So the idea of being able to watch your favourite TV channels in a corner of your PC screen while continuing your computing tasks is certainly appealing. You can keep one eye on the big footie match while simultaneously holding a conversation in a web chatroom or finishing your work.

You'd be forgiven for thinking such a setup is prohibitively expensive. Actually, it needn't be because you may already have some of the necessary equipment.

First, you'll need a satellite dish (fitted with a universal LNB) measuring either 60cm (if you live in Wales, the Midlands or southern Britain) or 80cm (for those in Ireland, northern UK or Scotland) to properly receive the TV signals from 19.2°E or 13°E.

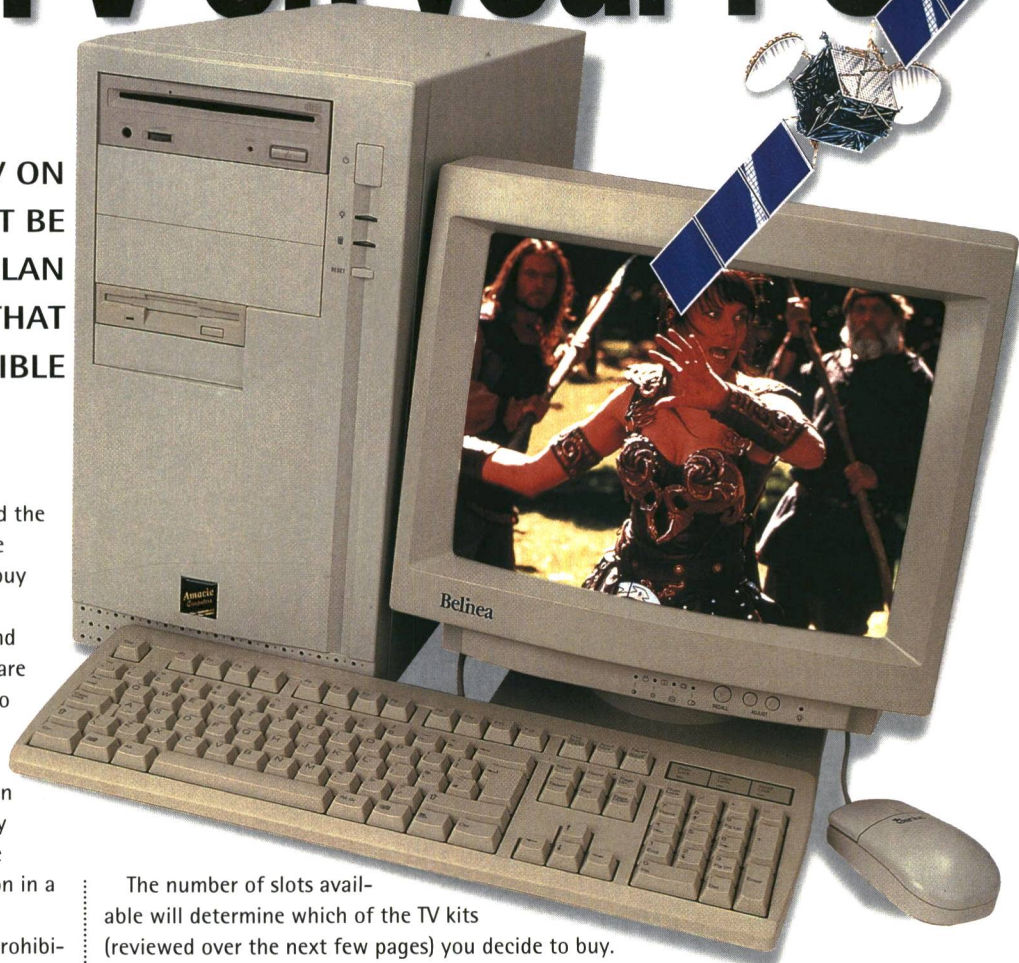
If you are currently using the dish to watch satellite TV on your living room TV, it will be a good idea to install a dual-feed bracket and two LNBs (tested in *Better Satellite's* Winter 98 issue).

This will enable simultaneous satellite reception on your TV and PC – thus avoiding arguments with the rest of your family.

Your PC should have a Pentium 100MHz processor or better, be running Windows 95 or 98, have 32Mb of memory and have 16Mb of spare hard disk space – although this does vary slightly according to which of the following setups you go for. It is advisable to have a standard VGA graphics card with 1Mb of memory or more.

If you bought a new PC within the past year or so, it will probably be powerful enough, but if you are unsure it is best to check with the company you got it from.

It's also worth checking that you have one or two unused PCI slots on the rear of your machine.



The number of slots available will determine which of the TV kits (reviewed over the next few pages) you decide to buy.

The satellite tuner cards require you to attach the co-ax cable from your dish into the card reader's socket, while the more basic TV cards require you simply to loop the UHF output from your satellite receiver into the UHF input on the card.

Once you have completed the final step – loading the supplied software onto your PC – you'll be able to enjoy satellite TV on your monitor within a matter of minutes.

Although you will need a motorised dish to pick up all the satellite positions, there's a good number of channels to be watched and heard on 19.2°E and 13°E alone.

Take note, though, that Sky's digital channels are not available using these kits. They do not contain the necessary Conditional Access Module to unscramble those channels and there are no immediate plans for such a system to be released.

Still, these kits let you experience the convergence of technologies – bringing a whole range of exciting satellite TV programmes to your PC desktop. It's the ultimate gizmo for any PC owner ■

TV PC HITS

Skyvision	£249
Easysat*	
Globalsat Vision	£170
Hauppauge WinTV	£79
Miro PCTV	£59
Pace TV Card	£79

* Easysat had not announced price details as we went to press



SKY VISION, £249

This £249 package comprises a digital satellite TV tuner card, a DVD board, cabling and all the software you'll need to watch free-to-air digital channels (such as those listed in the booklet on the front of this magazine). You do not need to have a satellite receiver in your home already to use it.

What you do need, however, is a Pentium 100MHz PC running Windows 95/98. And, most importantly, you require two spare card slots because the kit comes with two boards. One of these unscrambles the digital channels (and fits into a PCI slot) and the other is a satellite tuner board (which fits into an ISA slot). A flat cable runs between the two, connected at the data pin ports.

Your LNB's co-ax cable feeds into the satellite tuner board's LNB input (tuneable between 920-2150MHz), while the monitor connects to the DVB board using the supplied VGA cable.

Once it's set up, you need to load the software onto your system and then enter the details of your LNB (any figure between 5150-11475GHz) into the control panel.

After choosing one of the nine pre-set satellite positions or adding a new one, you can ask it to

perform an automatic channel search.

The symbol rate range extends from 30000-45000 (making it unable to receive SCPC digital channels), but the kit has adjustable FEC rates and allows PID figures to be inserted manually. One of this system's foibles is the length of time it takes to scan the frequencies – 30-40 minutes for 13°E.

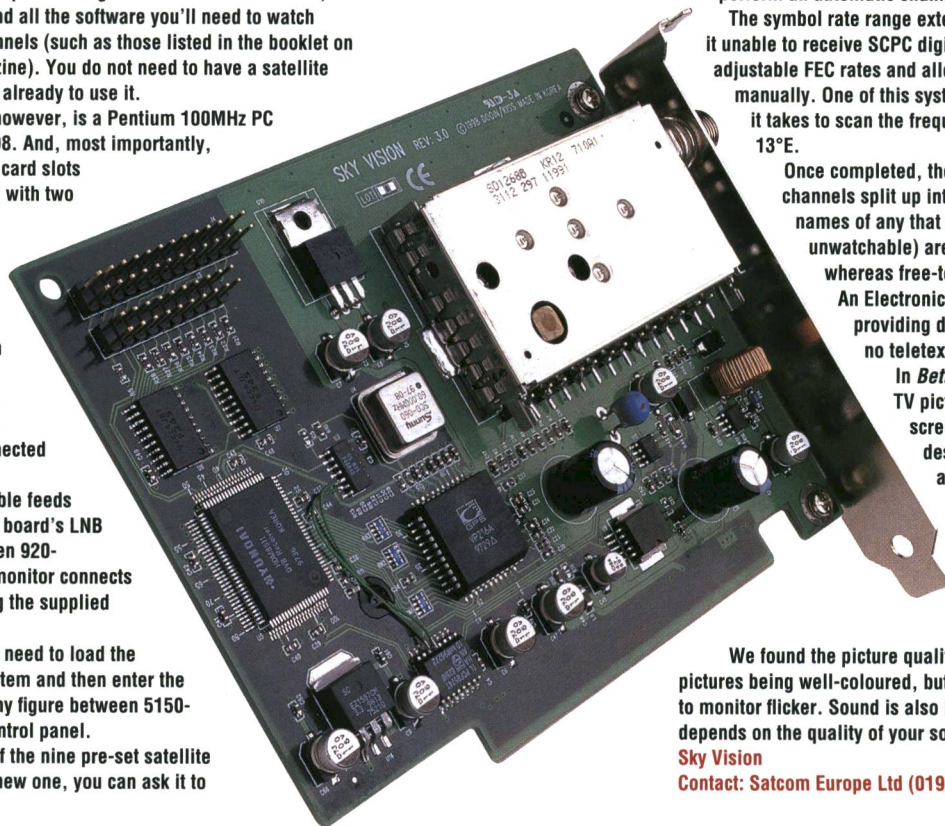
Once completed, though, it provides two lists of channels split up into radio and TV stations. The names of any that are encrypted (and therefore are unwatchable) are displayed in light grey, whereas free-to-air stations are shown in black. An Electronic Programme Guide is available, providing details of programme listings, but no teletext is offered.

In *Better Satellite*'s tests, the digital TV pictures were overlaid on the PC screen, so you couldn't see your desktop and operate other functions at the same time. The manufacturer told us that this was because of the type of video card we were using – so we'd suggest that you mention your card type to the company before buying.

We found the picture quality to be generally high, with pictures being well-coloured, but lacking a little in detail owing to monitor flicker. Sound is also impressive – although the output depends on the quality of your sound card and speakers.

Sky Vision

Contact: Satcom Europe Ltd (01923 267423)



EASYSAT (EUTELSAT CONVERGENCE1)

After trials lasting some 18 months, Eutelsat's Convergence1 service is finally up and running. Now renamed Easysat, the operation has much in its favour. Not only can it provide free-to-air digital TV and radio channels to your desktop, but it gives high-speed Internet access too.

Although the Internet signals come to your PC via the Eutelsat Hot Bird 4 satellite at 13°E, you'll need an Internet Service Provider (such as Easynet) as your requests for data are sent over a telephone line. When you sign up for the Convergence1 service, you'll be given a unique dial-up number to use the facility.

During *Better Satellite*'s tests, we were able to download files and access websites at impressive speeds of up to 100Kbytes/s. Eutelsat aims to offer speeds of up to 40Mbps in the not-too-distant future, although this will be restricted by data being slowed down when it travels through terrestrial routers and servers. Still, it's much faster than normal modem access.

At the heart of the Convergence1 kit is Adaptec's Satellite Express ABA-1030 receiver which converts the satellite signals into computer data. It plugs into a PCI slot at the rear of your PC, while the LNB cable runs into it, and is recognised by Windows 95 and 98 as a SCSI Bus Controller. When the drivers have been installed (supplied free on a CD-ROM) the hardware shows up as a network adapter.

Controlled using a natty onscreen menu, it lets you enter a channel's frequency, polarity, symbol rate, FEC and PIDs in much the same way as a normal digital satellite receiver.

Convergence1 uses transponder 111 (10.723GHz/H), an SR of 27500, 2/3 FEC and PIDs 514 and 515.

Free-to-air digital TV and radio channels can be received using the card. For the moment, users can see streaming real-time

MPEG-1 video using Xing's Streamworks player.

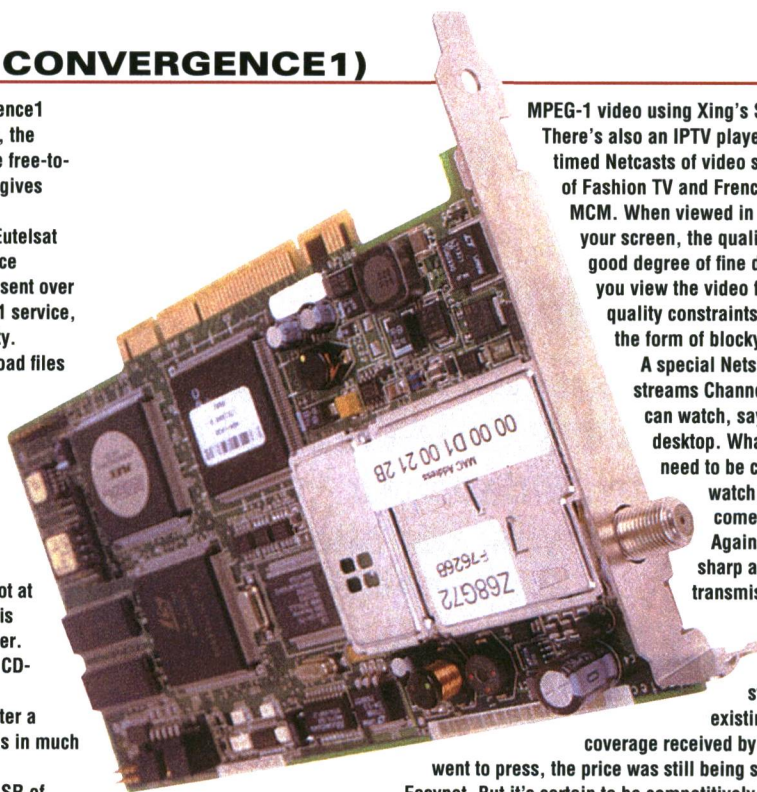
There's also an IPTV player which demonstrates timed Netcasts of video samples from the likes of Fashion TV and French music channel MCM. When viewed in a small window on your screen, the quality is adequate with a good degree of fine detail. It's only when you view the video full screen that the quality constraints begin to emerge in the form of blocky images.

A special Netshow channel also streams Channel 5 in real-time so you can watch, say, Oprah on your desktop. What's more, you don't need to be connected to the Net to watch it as the data stream comes from the satellite. Again, the output is not as sharp as the Astra transmission (not surprising given the MPEG-1 encoding process) but the pictures are still better than the existing grainy terrestrial coverage received by many people! As we

went to press, the price was still being set by Eutelsat and Easynet. But it's certain to be competitively priced for those who want both turbo-charged Internet and digital TV on their PC.

Easysat

Contact: Easynet (0171 681 4343) & Eutelsat (0117 9210117)





GLOBALSAT VISION, £170

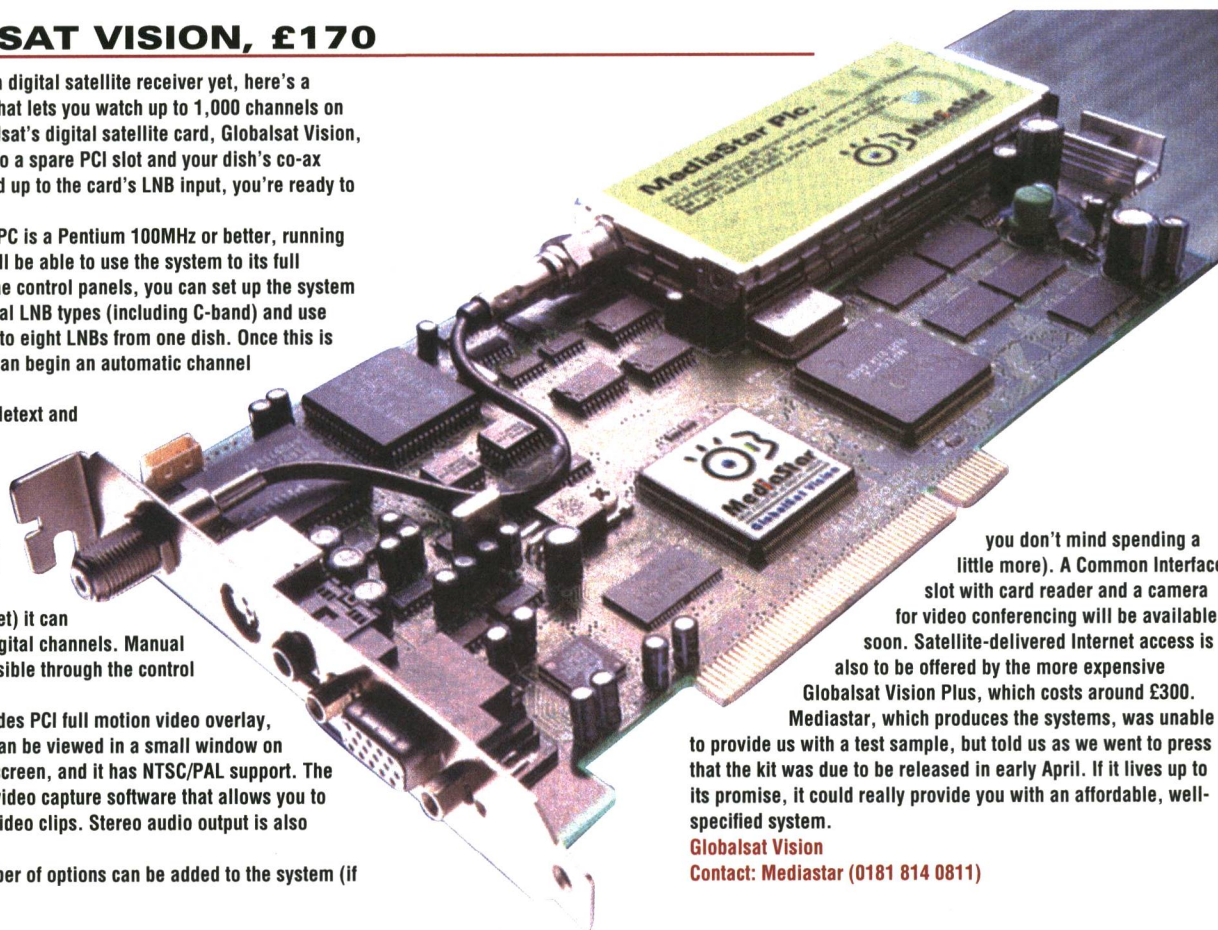
If you've not bought a digital satellite receiver yet, here's a cheaper alternative that lets you watch up to 1,000 channels on your PC. Once Globalsat's digital satellite card, Globalsat Vision, has been inserted into a spare PCI slot and your dish's co-ax cable has been linked up to the card's LNB input, you're ready to watch.

Provided that your PC is a Pentium 100MHz or better, running Windows 95/98, you'll be able to use the system to its full capabilities. Using the control panels, you can set up the system to operate with several LNB types (including C-band) and use DiSEqC to control up to eight LNBs from one dish. Once this is completed, the unit can begin an automatic channel search.

Access to digital teletext and an Electronic Programme Guide is provided. And because the system boasts a symbol rate range of 1000-55000 (the widest of any receiver on the market) it can also receive SCPC digital channels. Manual PID entry is also possible through the control panel.

Vision Plus 1 provides PCI full motion video overlay, so the video image can be viewed in a small window on your desktop or full-screen, and it has NTSC/PAL support. The product comes with video capture software that allows you to grab either stills or video clips. Stereo audio output is also provided.

As a bonus, a number of options can be added to the system (if



you don't mind spending a little more). A Common Interface slot with card reader and a camera for video conferencing will be available soon. Satellite-delivered Internet access is also to be offered by the more expensive Globalsat Vision Plus, which costs around £300.

Mediatek, which produces the systems, was unable to provide us with a test sample, but told us as we went to press that the kit was due to be released in early April. If it lives up to its promise, it could really provide you with an affordable, well-specified system.

Globalsat Vision

Contact: Mediatek (0181 814 0811)

HAUPPAUGE WIN TV, £79

If you already have a satellite receiver (analogue or digital) and don't mind hooking it up to your PC, this device is an inexpensive way of getting satellite on your PC screen. It comes with with a large assortment of bundled software and has the option of providing stereo sound output.

The card is designed to run on a Pentium PC 90MHz – preferably faster – under Windows 95. The plug-in card occupies a spare PCI slot on the motherboard and needs to be connected to the UHF socket of your satellite receiver and your PC's soundcard. The card has external audio and composite video inputs, and uses the same Booktree BT848 video decoder as Miro's PCTV card.

When the card was tested on a Windows 98 PC, we encountered major difficulties. Whether or not Win98 was to blame we can't be sure, but it was a nightmare. Needless to say, it worked – eventually. It's best to use this card with Win95. It's also worth noting that some PC video cards suffer compatibility problems, so pay a visit to Hauppauge's website (www.hauppauge.com) where there's a handy test program that will tell you if your card is up to the job.

The Win TV card takes about 20 minutes to install, most of which is taken up by loading the software from the CD-ROM. Included is Internet Explorer 4, a snapshot video capture utility and a teletext decoder.

TV setup is automatic because the tuner searches through the UHF frequency band for channels. It will find the satellite UHF frequency, but to change satellite channels you have to operate your satellite receiver's front panel buttons or remote control handset.

The TV window can be resized to suit your requirements. And from the toolbar you can also access teletext (though not Fasttext)

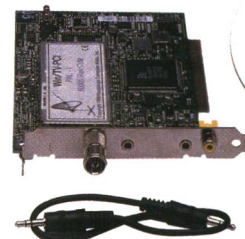
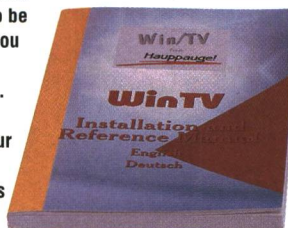
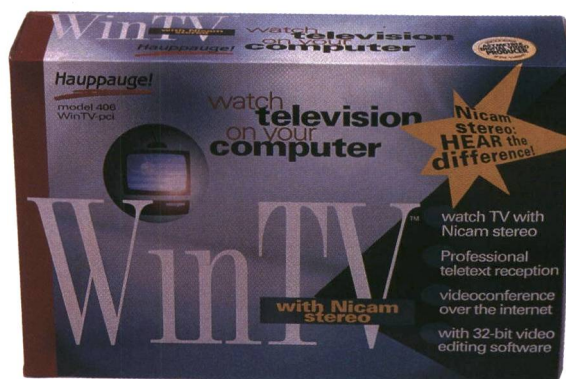
for up-to-date TV listings info and capture either moving or still AVI video images.

The result is a decent TV picture that shows a lot of fine detail and good colouring, although this depends on the quality of the source material, naturally. Mono audio is not bad, but if you go for the 'Nicom' option (an extra £20) you can enjoy stereo sound through your PC speakers.

The drawback with this setup is that you do need your satellite receiver and PC to be close together if you want to change satellite channels. Still, if you want satellite TV on your PC and are on a tight budget this is an attractive option.

Hauppauge WinTV

Contact: Hauppauge (0171 378 1997)





MIRO PC TV, £58

The cheapest of all the setups here, this PC card is very similar to the Hauppauge WinTV card in that you must already have a satellite receiver in your home. You'll need to link it up to your PC using some co-ax cable via the UHF aerial sockets.

Miro PC TV can run on a Pentium PC, 90MHz under Windows 95, although having a better spec system will speed up the refresh video rates. Like the Hauppauge card, this module also needs to be inserted into a spare PCI slot on your PC's motherboard and to be hooked up to the UHF socket of your satellite receiver and your PC's soundcard. There are external audio and composite video inputs, and the card also has an S-Video input.

Unfortunately, once again we got into difficulties when testing this card with Windows 98 and found that the video card we were using was not compatible either. Miro's website (www.miro.com) contains a good number of driver updates and patches to help you get around the problem.

PC TV takes only 10 minutes to install and setup its software, which includes the TV display and teletext decoder, plus a moving video capture program and TWAIN drivers.

Finding terrestrial TV channels is handled automatically by the card and is a quick process, but to change satellite channels you need to either press the satellite receiver's remote control unit or the front panel buttons on the receiver. So it's best to have your PC and satellite system reasonably close together.

Image quality is generally very good when inset quarter and half-sized screens are used. Bright vibrant colours and fluid motion are typical, and this can be enhanced if you use the card's S-Video input and link this to your satellite receiver. Sound is only provided in mono, although it is of reasonable quality.

Among the other functions are teletext (easily operated from the desktop window) and there's also a simple frame and AVI video capture program called VidCon32 which enables you to take images from your fave satellite shows.

This, then, is a very affordable module for those who want to spend as little as possible to get TV onto their PC desktop.

Miro PC TV

Contact: Miro (01895 424 200)



PACE TV CARD, £79

This product is manufactured by a different company from the one which makes satellite receivers, but the quality is just as good. Its TV Card puts a live TV picture in to a window on your desktop at any size right up to the full screen. As with the Miro and Hauppauge cards, you must already have a satellite receiver that you can hook up to the unit using its UHF sockets.

Once the TV Card has been plugged into a PCI slot in your PC (minimum specification Pentium 75MHz running Windows 95 or later) and the UHF cable looped into it, you install the application software (which takes about 10 minutes). The unit has an S-Video connector, composite video socket and a nine-pin phono for video cameras.

Unlike the other two TV cards, this one operates happily with Win 98. The process of finding channels is handled by the automatic search, which scans the UHF frequency band. As with the other TV cards, though, you have to change satellite channels using your satellite receiver rather than the PC.

The Pace TV Card also boasts teletext (actually, its the better Fastext), which can access pages faster. You can paste information from these into other Windows applications.

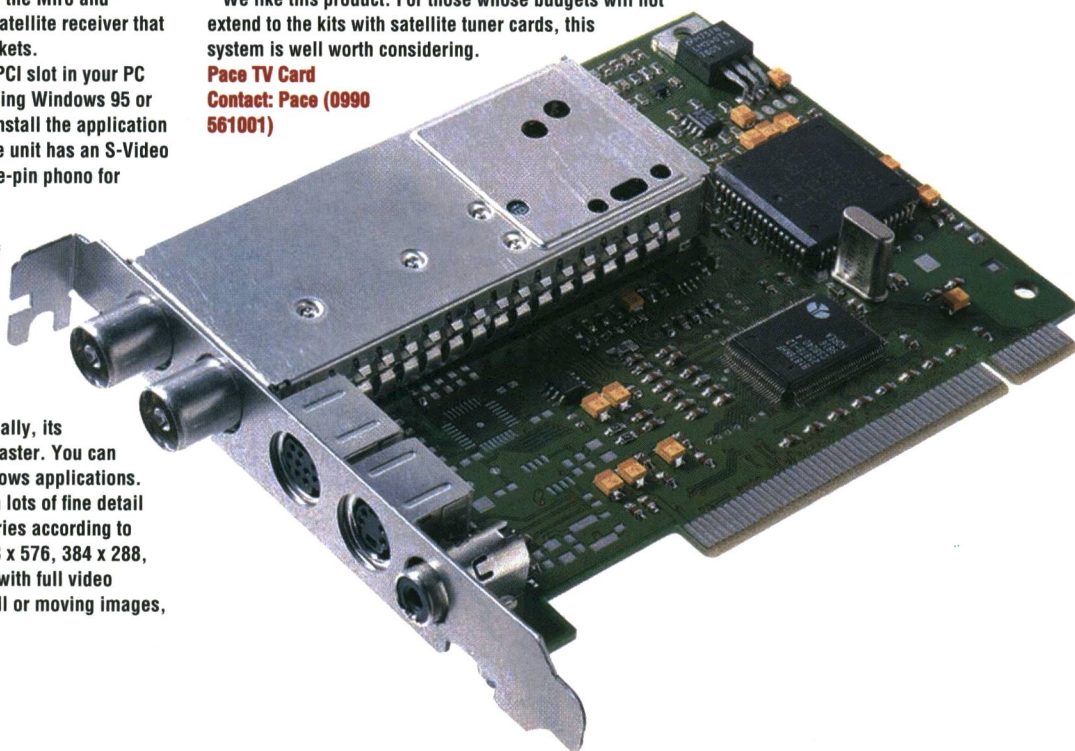
Video quality from the unit is excellent with lots of fine detail and solid colours, although this obviously varies according to which of the four resolutions you choose (768 x 576, 384 x 288, 192 x 144 or full colour). The module comes with full video capture software which lets you work with still or moving images, and save these into AVI format as required.

The Pace TV card can also provide stereo sound and we found the audio output to be of good quality. For an extra £20 you can buy the Pace TV and Radio card, which also provides FM radio.

We like this product. For those whose budgets will not extend to the kits with satellite tuner cards, this system is well worth considering.

Pace TV Card

Contact: Pace (0990 561001)



Essex Satellite Services

1391 London Road
Leigh-on-Sea
Essex SS9 2SA

Phone: 07071 224124/07971 189530

FREE D2MAC UPGRADES

All of our cards are all upgradeable from home and as we offer a **FREE CODE LINE UPGRADE SERVICE** you suffer a minimum of inconvenience, and will normally have your service restored within 1-2 hours. Canal +, NRK1 etc (eurocrypt-S) since their recent encryption changes can no longer be used on the same card as TV1000, TV3's etc (eurocrypt-M), it is now necessary to have a separate card for channels that broadcast in eurocrypt "S" and eurocrypt "M" it is still possible by using our cards to update as before through your remote control on all channels.

Mega Mac EUROCRYPT-M (TV1000, TV3's etc) wafer card - only £30.00.

Mega Mac EUROCRYPT-S (Canal +, TV Norge etc) wafer card - only £30.00.

SPECIAL OFFER: Buy any one of the above cards for £30.00 and get the second one at half price, **TWO cards for only £45.00.**

Are you still paying premium line rates £5-£6-£7 to get the new codes Why!!!

Do you really want to carry on paying somebody else £5-£10-£15 to have your card upgraded when you can do it yourself for free.

NEW: We now have two cards available which are the cheapest of their kind in Europe:

MULTI-PLUS CARD: All channels including CANAL +, TV1000, ETC AND ADULT. Codes for this card are available in advance of any code changes, only **£79.90!!!**

MULTIPLUS - AUTO-UPDATING CARD: All channels as card above, but automatically updates itself no need to enter codes anymore only **£149.00!!!**

If you have an old D2mac card we will allow you a **DISCOUNT OF £20.00** against our auto-updating card, this means it will only cost you **£129.00!!!**

The Digital Greek

GREEK DIGITAL BOUQUET 18CH'

MULTICHOICE AFRICA (MNET)

SHOWTIME NETWORK

SCT Official Cards 165 CYP

RDV Official Cards 140 CYP

NOKIA 9200S, 9600S

Antennas from 85cm to 310cm

Sky Channels available in Cyprus

Intenet add.:space.com.cy

Address: 17B Limassol Avenue, Nicosia 2112, Cyprus.

Tel: 00 357 9 625678 Fax: 00 357 2 332543

E-mail: concomun@spidernet.com.cy

Space Communications Ltd

D2mac/Codes/D2mac/Codes/D2mac

Call the D2mac helpline for a fully "interactive" service
Get the latest Codes and Updates
24 hours per day
All popular card types covered

0891 318 420

Use your phone to choose the codes that you need, or find out the latest news and gossip in the D2mac world.

0891 318 420

Instant access to the area of your choice

0891 318 420

Do not confuse this service with a tape machine service
This is a state of the art, tone access service, simple to use and easy to understand
Simply call in, get your code and hang up

OR

Use the fax on demand feature on the same line to receive all the latest Information, returned instantly to you by fax.

Service provided by
consolve ltd, point west, 1040 uxbridge road, hayes, middlesex ub4 0rj
All calls charged at 50p per minute at all times

OPTIMAC D2MAC
£135 + P&P



REFURBISHED CHURCHILL D2MAC - £100 + P&P
NOKIA 9600 - £350 + P&P
DIGIQUEST F1C1 - £350 + P&P
MULTIMAC CARD (UPDATE FROM HOME) - £20,
CHURCHILL/OPTIMAC MODULES - £25
MODULES UPGRADED - £10
NOKIA DBOX UPGRADES - £20
NOKIA DIGITAL REPAIRS UNDERTAKEN
80cm DISHES - £40 + P&P
NOKIA 9200'S £435 MANHATTAN LPT 760 £135
NEW AND USED SATELLITE RECEIVER
SR/LT8700 MAC BOARD (RING FOR PRICE)
DIY REPAIR KITS FOR MOST SATELLITE
RECEIVERS/DECODERS (RING FOR PRICE)
LNBS, KU.C BAND, POSITIONERS, DISHES, ACTUATORS,
REMOTE CONTROLS, D BOXES, CAMS

OPTIMAC & CHURCHILL SPARES

SCB ELECTRONIC - Tel: 0161 723 5442
15 Lichfield Road, Radcliffe, Manchester M26 3LZ
OPEN 9-6PM
6 DAYS A WEEK
GOT A PROBLEM RECORDING YOUR FAVOURITE PPV FILMS OFF SATELLITE OR DVD?
THEN YOU NEED THE VIDEO SORTER STANDARDS CONVERTER. Ring for more details.

* Ring for latest prices *. Repairs to most D2Mac decoders/satellite receivers.
Telephone for quote. Cheap secondhand satellite receivers available.
Web address: <http://www.starman.demon.co.uk/SCB/SCB/index.htm>

SKY DIGITAL
EASTER DEALS
Interest Free Credit
Buy Now Pay Later
FINANCE OVER 3 YEARS

SATELLITE & COMPUTER SPECIALISTS
Digital Receivers.....from £249
Humax De Luxe.....£349
Nokia 9600.....£349
Sky Digital.....from £199*
1/2 Price Linak 8" actuators, usually £120
.....NOW £59

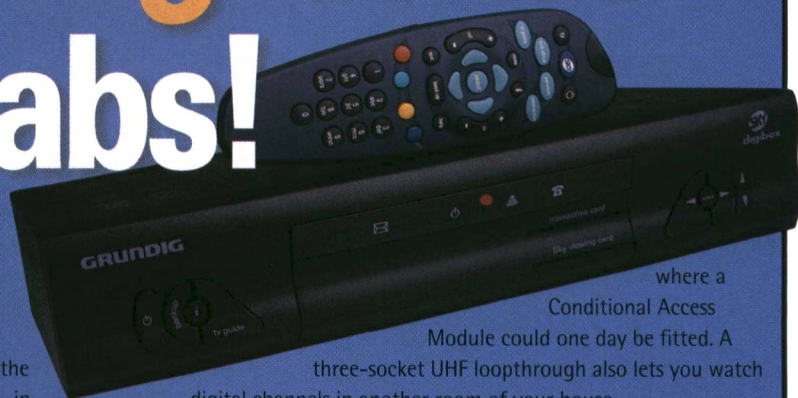
****Decodes some Syster Channels!! Beware Adult Programming**
Digital Receiver & Card Specialists • Computer • TV/Video •
Satellite Repairs & Sales
Send A4 sae for full catalogue and price lists.
Save time - check our cheap prices and after sales service 1st
185 VICTORIA ROAD, ALDERSHOT, HANTS, GU11 1JU
01252 - 336015/332670
Trade & Retail welcome. Mail Order.

Complete Motorised Kit.....from £99
New Digiquess Piva with built-in via
Access.....£379
Sky Analogue Receivers.....£99
Pace MSS300.....£169
Nicom TV card for your computer.....£115**

****Subject to Conditions**

PORTUGUESE ARABIC CHINESE JAPANESE SERBIAN ITALIAN POLISH FRENCH TURKISH GREEK GERMAN SWEDISH DANISH NORWEGIAN SPANISH CROAT

Grundig Digiboxes up for grabs!



With 170 TV and audio channels already running, and interactive services due to start soon, it's small wonder that Sky Digital is so popular.

And one of the best ways to get the service is with Grundig's Digibox. *Better Satellite* has teamed up with Grundig to offer you the opportunity to win one of two receivers – each worth up to £360 – in this competition.

Housed in a black casing with a sculpted fascia, the Grundig Digibox is a smart-looking system. A pair of card slots are provided on the front panel, along with several front panel keys which let you control the system's basic functions.

On the rear there's a single LNB input (which links up to the new mini dish), two Scart sockets for a TV and VCR, an RS232 serial interface (for PC connection in the future), a pair of stereo audio outputs (for linking up your hi-fi or sound amp package) and a metal plate covering a slot

where a Conditional Access

Module could one day be fitted. A

three-socket UHF loopthrough also lets you watch digital channels in another room of your house.

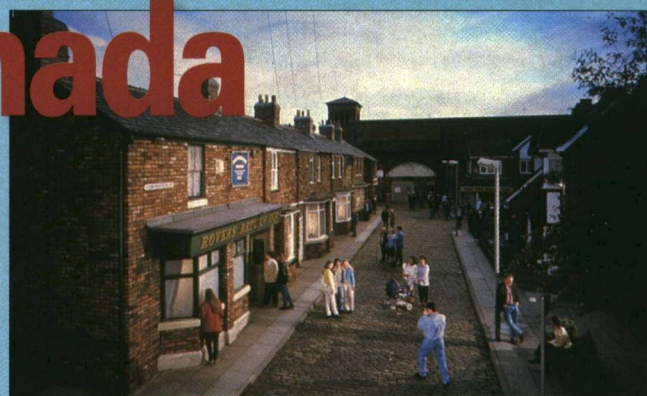
Among the features on offer are an Electronic Programme Guide with the latest TV listings, teletext and a full menu to control the receiver's settings. It's a user-friendly system that quickly gives you access to all the Sky Digital services from the Astra 2A satellite.

For your chance to win, tell us the name of the satellite on which Sky Digital broadcasts, then write the answer with your name and address on a postcard and send it to: **Better Satellite Digibox Contest, 57-59 Rochester Place, London, NW1 9JU** to reach us no later than May 1. Standard *Better Satellite* rules apply – see panel. Good luck! ■

Take a Granada tour on us!

Viewers of Granada Plus frequently follow the tribulations of *Coronation Street*, *Blind Date* and *Emmerdale* – now you can go behind the scenes to discover the secrets of wardrobe, make-up and special effects. All is revealed at Granada Studios in Manchester, where visitors can see production and editing suites operate – and wander through the sets of Granada's top shows on a backstage tour. *Better*

Satellite has got together with Granada Studios to



offer readers a chance to win five family tickets (each for two adults and two children 5-11 years). And there's also a free voucher (below left) that gives you £5 off adult tickets and £2 off children's tickets.

Sets from several other famous TV series are on show, including Baker Street from *The New Adventures Of Sherlock Holmes*, and the House of Commons, built for Jeffrey Archer's *First Among Equals* and used for series such as *The New Statesman* and *House Of Cards*. Entrance costs £14.99 for adults and £9.99 for children. Under-fives are free. Granada Studios are open all year, but opening times vary. Call the hotline for exact information

To win, tell us in which city *Coronation Street* is based and write the answer with your name and address on a postcard. Send it to: **Better Satellite Granada Contest, 57-59 Rochester Place, London, NW1 9JU** to reach us by May 1 ■

GRANADA STUDIOS VOUCHER OFFER

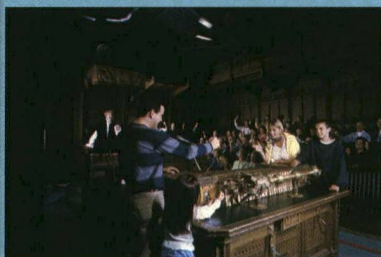
This voucher entitles up to six people entrance to Granada Studios for £9.99 per adult and £7.99 per child (aged 5-11). Only one voucher per family. Free admittance to under-fives only.

This voucher is valid from 27/5/99 to 30/10/99 (excluding Sundays and Bank Holidays). Please telephone the 24hr hotline on 0161-832 4999 for further information and opening times.

Granada Studios reserves the right to alter or withdraw any facility, show or exhibit without prior notice. Please present this voucher at the park on the day of your visit. Not to be used in conjunction with any other offer. Ref: *Better Satellite*



GRANADA
STUDIOS



Win an Echostar system worth a whopping £1,500!

A pair of Echostar AD-2000IP receivers, 90cm Gregorian dishes and Cambridge universal LNBs are up for grabs from Spectrum UK. If you want to watch digital and analogue TV channels from several satellite positions, but don't want black boxes cluttering your living room, here's a neat one-box solution. Echostar's AD-2000IP provides access to both TV formats and has an integrated positioner for controlling a motorised dish, letting you watch up to 700 analogue and 2,900 digital channels.

It's a good-looking system, sporting a curved fascia that incorporates an LED panel, standby power switch and channel up/down keys. Around the back, there's a decent selection of connectors to let you hook up several items of equipment.

Three Scart sockets are provided for a TV, VCR, and analogue decoder. And there are also video and S-video outputs, stereo audio outputs, the usual UHF loopthrough, a block of spring connectors for handling the wiring to a mechanical (only) polariser and motorised mount actuator.

There's also a 0/12V switching output for controlling LNB switches and four LNB connectors - one of which feeds the digital tuner, two the analogue tuner, and a fourth that loops the two sections together. Setting up the system is a doddle using the user-friendly onscreen menus. The receiver's two sections - analogue and digital - share the same user interface and dish info. The AD-2000IP comes preset with dozens of satellites and channels and it can be automatically programmed to find these.

Among the features offered are DiSeqC switching for operating several LNBs from one dish, digital teletext, an Electronic Programme Guide, a wide symbol rate range of 2000-45000, and a plethora of analogue facilities. *Better Satellite* has teamed up with Spectrum UK (0181-651 5030) to give readers the chance to win one of these receivers with a 90cm Gregorian dish and a Cambridge universal LNB, worth a com-

bined £750. Two kits are up for grabs.

Spectrum is the sole UK distributor of Gregorian dishes. These super-strength antennas use a pressed aluminium reflector in front of the LNB, which has a large Z-shaped lip for rigidity. It is very accurately formed and it is this that accounts for their incredible performance.

They clamp to a pole mount or fix to a wall, and elevation is handled by a long threaded rod that hinges the mount on its fixing. Winners will receive an Echostar AD-2000IP receiver, a 90cm Gregorian dish with a Cambridge 0.7dB universal LNB, plus 10m of cable and a fixing kit. Installation is not included. Fill in the form below to be in with a chance ■



BETTER SATELLITE/ECHOSTAR CONTEST ENTRY FORM

Read through the above text and answer the easy question below, then fill in your details and post the form to us at: *Better Satellite* Echostar Contest, WV Publications, 57-59 Rochester Place, London NW1 9JU, to reach us no later than May 1, 1999. Standard *Better Satellite* rules apply - see panel.

Question: What is the name of the sole UK distributor of Gregorian dishes?

Answer:

Name:

Address:

Daytime tel no:

From time to time *Better Satellite* and the suppliers of prizes would like to make our readers special offers of products that we believe may be of interest. If you do not wish to be included on our database, please tick this box ()

BETTER SATELLITE COMPETITION RULES

1. Entrants must be over 18 years old and resident in the UK. 2. Employees of WV Publications and companies supplying competition prizes are ineligible to enter. 3. Proof of posting will not be accepted as proof of delivery. No responsibility will be accepted for entries lost, damaged or delayed in the post. No alternatives, cash or otherwise, will be given as prizes. 5. The winner will be notified by post. 6. The judge's decision is final. 7. Entries for this issue's competitions must be received by May 1, 1999. 8. Entries will be drawn on May 2, 1999. 9. No purchase is necessary.



Satellite to go

HITTING THE ROAD FOR YOUR HOLIDAYS? IF SO, DON'T DEPRIVE YOURSELF OF SATELLITE TV. MARTIN PIPE EXAMINES PORTABLE SYSTEMS ON THE MARKET

Spring is a time when people's thoughts turn to holidays. And one of the most popular ways to explore Europe is to jump in a camper or a caravan to roam across the Continent.

You travel when you want, stop at the tourist sites you choose and can stick to a pre-determined budget. And you can also buy a special mobile satellite TV system so you don't miss your favourite TV shows.

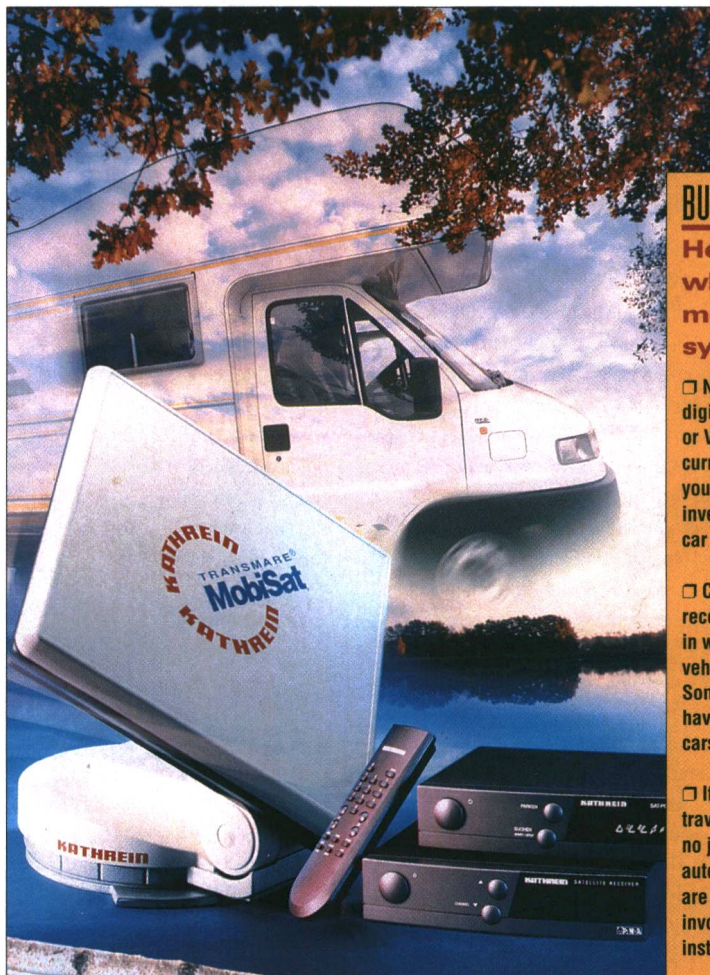
Fortunately, the continental coverage afforded by satellite means you can watch all the UK satellite channels on a portable TV, provided that you invest in specialised receiving equipment – some examples of which we'll examine here. At its simplest level, such equipment consists of a compact aerial fitted with a universal (digital/analogue compatible) LNB, and a special receiver that can be powered from a car (12V) or truck (24V) battery, rather than the mains. Whenever reception is required, the aerial is erected and aimed at the desired satellite.

It's packed away when you move, or when satellite TV isn't needed. The more advanced systems, targeted primarily at boat-owners, will automatically find the wanted satellite(s). Because the latter are permanently installed, they represent less of an opportunity for thieves.

It's worth pointing out that none of the tested (analogue) systems have built-in decoders. All originate from Germany, where most popular channels are free-to-air. If you want Sky, you should consider partnering a mini-dish (such as the Arcon Sweetly) with a regular mains-powered receiver/decoder.

Indeed, there are no battery-powered digital receivers – free-to-air or Sky – available at present. If you're staying at a caravan site, then the chances are that a mains supply will be available to you. If not, you can purchase an 'inverter' (see panel).

It's worth noting that all of the gear examined here is only guaranteed to work in mainland Europe, so if you are travelling farther afield, the aerials may have insufficient gain for reliable Astra or Hot Bird reception.



Keep track of your favourite soaps and comedies when you're on hols – get a mobile satellite system



BUYING TIPS

Helpful hints when buying mobile satellite systems:

☐ No battery-powered digital receiver, Astra IRD or Videocrypt decoder is currently available, so you'll need a mains inverter to run these off a car battery

☐ Check that any portable receiver you're interested in will work from your vehicle's power supply. Some boats and all trucks have a 24V DC supply, all cars are 12V

☐ If you're an occasional traveller, there's probably no justification for an automated system. These are expensive, and involve significant installation work

☐ Check that satellite reception is possible where you're going. If you're marginally out-of-footprint, a portable receiver with threshold extension will help to make the most from the weaker signals

☐ Ensure your vehicle has a suitable mounting surface for the dish. If it doesn't, an external dish stand might fit the bill

☐ Some of these systems aren't available in the UK – but there's nothing to stop you buying them while you're abroad or by ordering them from the UK

Indeed, there may be no suitable signals at all because some countries employ C-band frequencies, rather than Astra's Ku-band, for satellite broadcasting and C-band channels generally require large dishes for reception that are not suited to life on the road.

GREAT GRUNDIG

The first of the systems tested by Better Satellite is Grundig's Microsat. It comprises a conventional 60cm solid dish, 0.7dB universal LNB, and a compact battery-powered analogue receiver. The lightweight STA601 dish is fairly



GRUNDIG MICROSAT

VALUE FOR MONEY	1	2	3	4	5
FEATURES	1	2	3	4	5
PERFORMANCE	1	2	3	4	5
INSTALLATION	1	2	3	4	5
EASE OF USE	1	2	3	4	5

Contact: Grundig, Marketing, Kundendienst Süd, Beuthener StraÙe 65, Nürnberg, Germany. Tel: (+49) 9117030. Web: <http://www.grundig.com>

easy to assemble and dismantle, but you'll need a Phillips screwdriver. An ideal dish would have a foldable LNB boom, so that it could be stowed away in the smallest possible space when not in use. Unfortunately, the Grundig dish doesn't have one of these.

What it does have are wingnut-secured clamps that permit fast attachment to, alignment on and removal from a convenient vertical pole. The elevation adjustment is also secured by wingnuts.

It's easy to align to the desired satellite by trial and error, although we would like to see setup tables for principal European locations in the instruction book. More positively, all supplied documentation includes sections written in English – even though the system is targeted at German buyers.

The decoderless STR100DX receiver isn't much to look at – back and front alike are festooned with connectors. One of these sockets connects to a control unit with channel up/down buttons and a sensor for the remote handset. Obviously, Grundig banks on its receiver being installed out of sight.

Other socketry includes a single LNB input, DC power (11 to 26V) and three Scart sockets (for TV, VCR and decoder). There is also – would you believe it – a dedicated 'synchro-start' socket for timed recording with a compatible Grundig VCR. For some stupid reason, Grundig hasn't provided a UHF output. Your TV thus needs a Scart socket, unless you loop the AV signals through a VCR.

It's well-featured in other ways, though. It got stereo sound, and is Panda 1-compliant. Why bother putting top-notch audio into a receiver that's unlikely to be partnered with anything more hi-fi than a portable TV?

Still, you could enjoy satellite radio via your vehicle's audio system. Note that satellite radio is the only route to crystal-clear BBC radio in Europe. Radio and TV channels can be shared across the 199 channel memories provided. The Grundig may not have an Astra Digital Radio facility, but it comes a close second in terms of features.

Like the Kathrein receiver (tested later in this article), the STR-DX100 gives you threshold extension. This is very important in a portable system as it gives you better pictures from weaker signals. This receiver has only three steps of adjustment (against the Kathrein's 32), but the system cleans up sound as well as video.

Grundig's system comes with a 60cm dish and a tiny receiver powered by battery



It's quite effective, but you're unlikely to need it if you're watching Astra or Hot Bird in mainland Europe – that 60cm dish collects more than enough signal. Move towards the fringes of the satellite's footprint, though, and threshold extension begins to come into its own.

What else can the receiver do? The audio system has 32 user-adjustable modes, and more de-emphasis modes and bandwidth settings than some multi-satellite receivers!

There's also 22kHz tone switching, a wideband tuner – and DiSEqC1.0 compatibility. With the appropriate switching unit, up to four dishes can be connected.

Thankfully, this flexible little receiver is also very easy to use.

Menus are logically organised, and easy to understand – despite being presented in German! If you do run into language difficulties, the manual is a help.

Performance is superb, and we feel that the system's potential isn't going to be realised with a 14in portable TV – Scart or no Scart. For this reason, we connected the receiver to a big mains-powered stereo TV. Pictures are sharp, accurate and free from grain. Sound is excellent too, with minimal pumping and little audible hiss – it also does justice to satellite radio.

Here's a product that would make an excellent 'second receiver' when you're not on holiday – to this end, a mains power unit is supplied. At the UK test location, the 60cm dish and 0.7dB LNB brought in sparklie-free pictures from Hot Bird and Astra. We also got more than acceptable results from Eutelsat II-F2 at 10°E and Telecom 2C at 3°E.

In all, it's an excellent performer – but we get superfluous features at the expense of an UHF modulator and a

DISH ALTERNATIVES

If you want to run an existing receiver from on-site mains supply or an inverter, then the Arcon Sweetie is a good choice of dish. There are, however, alternatives. In the days of BSB, they simply couldn't make enough Squarials for the launch date, and so some subscribers were supplied with a 35cm 'compact dish'.

These often turn up at boot sales and rubbish tips. If the BSB LNB is replaced with a modern low-noise universal one, some quite acceptable results can be obtained. Note that you'll need to make a new LNB bracket, however, and finding the best position for the LNB requires experimentation. A BSB dish has a wider beamwidth than a standard (60cm) Astra dish, and so don't rule out some interference from Eutelsat II F3 on some Astra channels. With a 0.7dB Grundig LNB, we were able to pull in a surprisingly clean Sky News on our old BSB dish.

Another alternative to the Sweetie is the Winegard range of portable dishes. These are supplied – ironically enough – by the same company responsible for importing the Sweetie! Winegard dishes are imported from the motor-loving US, where digital Ku-band satellite reception with compact dishes is now commonplace. One of the Winegard models, the 46cm RD-0146, is raised by means of a crank handle. This £289 product, which includes a regular 0.7dB universal LNB, is intended primarily for mounting on the roof of a caravan. If there's insufficient space on top of your caravan, another Winegard dish may solve your problem. The £129 Road Authority, a 46cm dish with 0.7dB LNB, is designed for mounting on a pole. Not just any old pole, however – you'll need the Winegard telescopic variety, which clamps around the vehicle's ladder bracket or screws to its wall. A 60in telescopic pole sells for £99, while an 84in one will set you back £119.





You'll go square-eyed with this 50cm flatplate dish and receiver from Kathrein



KATHREIN BAS60/HDP160/UFD346

VALUE FOR MONEY	1	2	3	4	5
FEATURES	1	2	3	4	5
PERFORMANCE	1	2	3	4	5
INSTALLATION	1	2	3	4	5
EASE OF USE	1	2	3	4	5

Contact: Kathrein, Anton-Kathrein-Straße 1-3, Postfach 100444, D-83004 Rosenheim, Germany. Tel: (+49) 80311840. Web: <http://www.kathrein.de>

non-collapsible dish. Pricing is difficult. In Germany, the receiver has a recommended selling price of DM300 (about £100). The dish shouldn't be more than the equivalent of £50. You can buy the LNB in the UK for under £20.

KATHREIN

Remember the Squarial? This non-dishlike satellite receiving aerial seemed to be the

main selling point of the ill-fated satellite broadcaster BSB. The compact and discreet 'flatplate' technology lives on. Flatplate aerals form part of the Technisat and Kathrein systems tested here. In both cases, the aerals are bigger than those supplied with BSB kits – and the LNBs are low-noise (0.8dB) universal types compatible with analogue and digital services.

The Kathrein BAS60 flatplate dish is 50cm x 50cm, and is roughly equivalent in performance to a 80cm dish. What makes it particularly interesting is the optional HDP160 motorised mount and positioner, which are designed for permanent installation in boats, mobile homes and trucks.

The mount, a dual-axis rather than a polar design, screws to a flat vertical surface. Drilling is required, but

waterproof sealant is provided. In conjunction with a compatible receiver – such as the UFD346 supplied for review – the HDP160 will home in on a satellite automatically.

In addition to Astra, the system should work with the Hot Bird craft at 13°E among others. The system is very expensive, though. One German retailer is selling the positioner alone for DM1899, which is equivalent to more than £650. To this must be added the cost of the aerial (DM298, or £105) and receiver (DM399, or £140). Still, if you can afford a luxury yacht, you can afford this.

The diminutive UFD346 receiver may be the cheapest item, but it's quite a flexible beast. As with the similar Grundig unit, there's no UHF modulator – you'll need a TV with Scart outputs or an external UHF modulator.

The user interface takes the form of a wired control unit that can be clipped into the receiver. It has an infrared sensor for the remote handset, and channel up/down keys. The wired control unit connects via a special 'data' port on the rear of the receiver – if used as part of the motorised system, the positioner is connected here instead.

The UFD346, which can be powered by a 12-to-24V DC power source or via a supplied mains transformer, is decoderless. It does, however, feature decoder, VCR and TV Scart sockets. It doesn't just receive analogue TV and radio channels – the UFD346 also has the ability to receive about 80 predominantly German ADR (Astra Digital Radio) programmes currently on the air.

A more-than-adequate 250 TV, 99 radio and 250 ADR channels can be stored by the stereo-capable UFD346. There's a wideband tuner, 22kHz tone switching for universal LNBs, and compatibility with DiSEqC1.0 LNB selection. Threshold extension is also included, as is support for 50µs and J17 de-emphasis. The audio circuitry isn't billed as Panda 1, but it uses the same signal processing chip as the Pace MSS series – we'll let you draw your own conclusions.

The receiver connects to the positioner via a data cable – a second connector on the positioner accepts the cable from the control unit. You'll also need to connect a Scart cable between the receiver and positioner. Cleverly, the positioner looks at the teletext information broadcast by Astra's clear German channels when trying to lock onto the satellite. And if you want to access other satellites, you have to flick a switch on the positioner.

The positioner has buttons to retract the aerial when you're moving (relevant to caravanners) and invoke satellite-finding. Kathrein has also made provision for the aerial to lower automatically when the ignition key is turned.

But using the positioner is difficult. The two buttons have different functions, depending on how you switch the unit on. Locating satellites manually is tricky, as is selecting pre-programmed satellites. Bearing in mind that the positioner is umbilically linked to the receiver, we can't understand why positioner programming cannot be undertaken via onscreen graphics. At the very least, a few more buttons on the positioner would greatly simplify the user interface.

The first time we tried the system it found Astra easily – we got excellent pictures within five minutes. We then reoriented the positioner – to simulate movement to a new location – and tried again. This time, it refused to find a satellite – its 'no signal' LED winking infuriatingly.

The receiver, connected up to a standard 60cm dish, is



capable of superb results – just as good as the Grundig. ADR is a real hoot, too! Unfortunately, the UFD346 is marred by a confusing user interface. To get out of the (German-language) menus, for example, you have to press the standby key. Intuitive, eh? The idea is neat, and Kathrein has obviously tried its best to offer a complete luxury package – but, in our opinion, more development is needed.

TEUTONIC TECHNISAT

Like the other systems featured here, this Technisat partnership hails from Germany – the receiver's instruction book has a Teutonic flavour, although the dish paperwork has an English section.

The compact Mobylsat 2 receiver is the only one of the group to have a UHF modulator but, sadly, it adheres to the continental PAL-B/G standard rather than our PAL-I variant. So you'll get pictures but no sound. The receiver must therefore be modified – invalidating guarantees – or you're forced to link it to your TV via one of the three Scarts.

The other two Scart sockets are reserved for a decoder – because, like the other two receivers, there's no internal one – and a VCR. There are also phono sockets for stereo audio. It has to be said that by the standards of the other receivers, the Mobylsat 2 is rather primitive.

There are no onscreen graphics – all tuning information is relayed back to the user by means of an LED display. Making changes to channel settings requires you to activate a recessed button on the handset with a matchstick or pen. User interfaces of this type were common 10 years ago! But back then you wouldn't have seen 22kHz tone switching or wideband tuners – both of which are on the Mobylsat 2. One useful feature that's missing, however, is threshold extension.

Indeed, the Technisat is the only receiver of the group without it. More positively, it can be powered by any DC voltage between 12 and 24V, or via the supplied mains unit. What's more, there is a generous helping of 205 channels which are pre-programmed with the radio and TV services available from Astra and Hot Bird.

As with the Kathrein system, a flatplate aerial is supplied. The Satman is a bit smaller than the otherwise-similar Kathrein one, and has performance equivalent to that of a

MAINS INVERTERS: WHAT ARE THEY?

Let's say you've got a portable dish, such as the Arcon Sweetie. For completely portable use, you'll need one of the battery-powered receivers we looked at earlier. But what about mains-operated receivers – the only ones with in-built decoders? If you won't be staying on a caravan site with mains supply, there is an alternative. A mains inverter up-converts the DC voltage from a car or truck battery into a 230V AC one that closely approximates the domestic mains. Many models hook up to a vehicle's cigarette lighter socket. Maplin sell a 12V (i.e. car) inverter, with a 200W output, for £120. Maplin's 'Handy Mains' device, which has the order code CC86T, can sustain a small TV and a satellite receiver.

Any satellite receiver could be used – including Videocrypt IRDs and Digiboxes. Couple one of these with an inverter and a portable dish, and you'll be able to enjoy Sky reception on holiday. Note that mains inverters draw a lot of power; to avoid a flat battery, we recommend that you should run the engine. As an aid, the Maplin device has an internal buzzer that warns you when the battery is becoming significantly discharged.

Technisat offers an automatic positioner, flatplate dish ...and excellent picture quality

regular 60cm dish. The Technisat benefits from an automatic positioner that is quite similar to the Kathrein one – except it's much simpler. Sat-Track's sole job is to search for, and lock into, Astra. The flatplate bolts onto the mount, and its RF output hooks up via a supplied patch lead to a F-connector on the side. A second F-connector feeds the receiver. Another cable goes to a simple control unit – press a button and off it goes. The positioner requires holes to be drilled in the roof of your vehicle.

Retracting the aerial isn't electronic as it is with the Kathrein – you have to pull a handle that dangles into the cabin from the roof. This system isn't neat, and could be quite dangerous – if, for example, you were to bang your head into the protruding metalwork. Clearly, you have to be very careful where you drill that mounting hole. Your head isn't the only thing that could get damaged.

Invoking positioning with the aerial retracted isn't going to do your mount much good. That said, the mount's power is derived from the receiver and the motors run at a torque that is too low to do any serious harm. Even so, Technisat hasn't included any fail-safe measures – so be careful!

Sat-Track proved quite reliable in operation. It only slipped up once during the test, when it found Eutelsat II F3 by mistake. It is quite slow, however – basically it rotates, and lowers or elevates, the dish until the satellite is found. Kathrein's system works in much the same way. Sat-Track is somewhat slower, taking five minutes to achieve what the Kathrein can within two.

Pictures were excellent, although some channels were



TECHNISAT

VALUE FOR MONEY	1	2	3	4	5
FEATURES	1	2	3	4	5
PERFORMANCE	1	2	3	4	5
INSTALLATION	1	2	3	4	5
EASE OF USE	1	2	3	4	5

Contact: Technisat Satellitenfernsehprodukte GmbH.
Postfach 560, 5451 Daun. Web: <http://www.technisat.com>



ARCON SWEETIE

VALUE FOR MONEY

1 2 3 4 5

FEATURES

1 2 3 4 5

PERFORMANCE

1 2 3 4 5

INSTALLATION

1 2 3 4 5

EASE OF USE

1 2 3 4 5

Contact: Satron, 32 Broad Street, Ely, Cams CB7 4AH. Tel: (01353) 669009

A mere 43cm across, the Arcon Sweetie is an unobtrusive antenna

spoilt by the occasional sparklie. In mainland Europe, where Astra is stronger, you should get better results. Even so, threshold extension would be handy. The sound is reasonable, but not quite up to the high standards of the Kathrein and Grundig setups. But then again, you won't notice the difference between the three if the audio is going to be reproduced through a TV speaker. It may have its limitations, but this Technisat system has quite a lot going for it. If you don't require Sat-Track, you can pick this system up for DM549 (under £200). With Sat-Track, though, expect to pay DM2149 (about £750).

ARCON SWEETIE

The £120 Arcon Sweetie, also made in Germany, was originally intended to be an aesthetic dish for home use. It's a mere 43cm across and, courtesy of a novel 'cassegain' design, doesn't have the ugly LNB protrusion at the front. Those small dimensions make the Sweetie unobtrusive when mounted on a wall – they also add to its portability. This isn't lost on the manufacturer, which can supply an optional suction mount capable of temporarily fastening the dish to a smooth surface like a caravan roof.

The standard model, however, is equipped with a clamp for a vertical pole. It's worth noting that a 57cm model is available in addition to the 43cm one. The bigger one is £30 dearer, but has a performance roughly equivalent to a standard 70cm 'offset' dish. If your travels are likely to take you to the edges of the wanted satellite's footprint, the 57cm

model is worthwhile. The 43cm model – which doesn't have the same signal pulling-power as a conventional 60cm offset – should be fine in mainland Europe.

So how does it work? Signals from the satellite are collected from the main reflector, just as with every other type of dish. A standard offset dish

focuses the signals to the LNB, which is mounted on the end of a protruding boom that makes storage and transport difficult. Cassegrain dishes, however, are rather different.

The signals collected by the main dish are directed towards another reflector mounted at a focal point in the dish's centre. This sub-reflector is convex in shape, and it bounces the focused signal through a hole in the main reflector to the LNB. Yes! although you can't see it, the Sweetie uses an LNB. Just like an offset dish or flatplate. The Sweetie's LNB is a 0.7dB universal one that is compatible with analogue and digital receivers.

We found the 43cm Sweetie easy to install – although we would have preferred winged bolts instead of the Allen types provided. Assembly involves only four of these bolts, so we shouldn't really complain. The small dish has quite a wide beamwidth, making it quite difficult to train on the Astra 19.2°E satellites while avoiding co-channel interference from the adjacent Eutelsat II-F3.

It is possible, though – and the Sweetie is capable of decent results. At the southerly test location, watchable pictures were obtained from most Astra channels. A few of the weaker ones suffered sparklies. Astra's footprint centres on mainland Europe, though. Holiday there, and you'll have no problems with poor signal strength. The 57cm model was moderately easier to set up, and brought in sparklie-free channels from Astra; we even got watchable pictures from the 13°E channels. In all, both dishes performed well, but are expensive ■

CONCLUSION

All of the tested systems were based on flexible low-voltage receivers that could be powered from a vehicle's electrical system. Some of the features provided, such as DiSEqC switching and stereo audio, are of limited benefit to portable operation. They do make excellent second receivers for indoor use when you're not on holiday, though. The most comprehensive receiver was the Kathrein, which featured ADR and threshold extension in its repertoire. The Grundig also has threshold extension, which is a boon as far as weaker signals and small dishes are concerned. All receivers required a Scart connection to the TV, however, and none has any kind of decoder.

Indeed, low-voltage decoders, receiver/decoders and digital receivers don't yet exist. If you require Sky, you're

advised to couple a mains receiver with a mains inverter. At some holiday locations, such as caravan sites, mains power might be available. Regarding the dishes, we found that all were capable of good results from Astra. The automatic positioner systems from Kathrein and Technisat are tricky to install, and can be rather erratic in operation. They're quite expensive, and should only be considered if you're going to use them frequently.

Our ideal system would combine the Arcon Sweetie dish, the Kathrein receiver and the Grundig's user interface. A good compromise – and a value-for-money system – is the basic Technisat one without positioner. It is worth noting that the only tested product on sale in the UK is the Arcon Sweetie, but the others are easily ordered from Germany ■

SUBSCRIBE TODAY FOR JUST £9.20

And get an extra issue **FREE!**

In the exciting digital TV era you need a satellite magazine that you can trust to keep you well-informed with reliable news and impartial buying advice.

Better Satellite is the must-read quarterly journal that keeps you abreast of all that's new in the European satellite TV industry with exclusive group equipment tests, channel guides, buying tips and lots, lots more.

To take up Better Satellite's special subscription offer, ring our credit card hotline on 01858 433608 now, or fill in the coupon below. You'll get the next five issues of Better Satellite delivered direct to your door every quarter for only £9.20.

No other magazine offers such extensive product surveys and easy-to-understand buying tips as Better Satellite. For satellite enthusiasts and first-time buyers alike, it's essential reading. Guarantee your copy today.

**better
satellite**

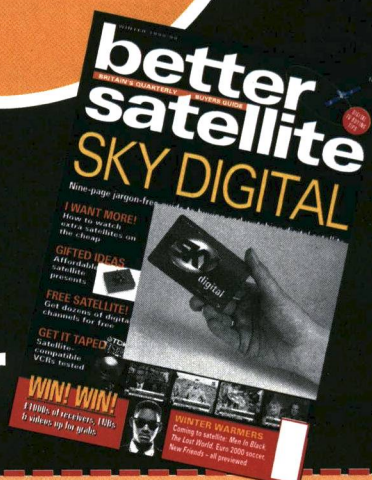
...better by far



features



tests



BETTER SATELLITE SUBSCRIPTION ORDER FORM

I wish to take out a subscription to *Better Satellite* magazine.

Send to: **Better Satellite**, Ashfields Subscription Management Ltd, Unit 6, Pipewell Road Industrial Estate, Desborough, Northants NN14 2SW.

Subscription rates: UK £9.20, Europe £17, rest of world airmail £25 sterling (surface mail £21).

EITHER: ☐ I enclose a cheque for £..... (payable to WV Publications).

OR: ☐ I wish to pay by Visa/MasterCard/Switch/Amex/Diners. Please charge £..... to my account.

My card number is:

Switch No. Expiry Date:/..... Signature

Name

Address

Postcode

If you do not wish to receive other marketing and product information from WV Publications please tick the box ☐ BS-SPRING-99



Dance to a different tune

If you're new to the world of surround sound but often wonder how people can possibly afford to set up their own home cinema, you'll be overjoyed to find out that there are a number of surround sound starter kits that will be right up your street.

If you have the money, it's always advisable to spend that little bit extra and buy home cinema separates – powerful stand-alone amplifiers and speakers that will get the best out of all that satellite entertainment that is now broadcast in surround sound.

Anything from *The Simpsons* to live Premiership soccer and top-rated drama to the best film premieres are broadcast on satellite TV in Dolby Pro-Logic (the established surround sound format), so it really does pay to buy into surround sound now.

A few years ago, home cinema was mainly taken up by enthusiasts with money to spend on powerful black boxes. Now, with surround sound equipment available from your local high street consumer electronics chain stores at very affordable prices, it's so easy to step up to surround sound.

For as little as £120 (the price of a half-decent analogue satellite receiver) you will be able to buy surround sound kits that include everything you need to turn your existing system into your own little home cinema.

These kits come in a variety of shapes and sizes, but they all have several things in common. The systems on test here are either mini systems (conventional hi-fi systems that include Dolby Pro-Logic processing and the necessary speakers) or an amp/speaker package (exactly as it sounds), and all have five satellite speakers and sufficient Dolby Pro-Logic processing circuitry on board, ensuring that when you open up the package you've got everything you need for (almost) instant surround sound. Good luck! ■



Transform your satellite TV experience with a sound amp package

BUYING TIPS

Helpful hints when buying surround sound packages:

☐ Remember to buy what you need. If you require a complete home entertainment system, check out the mini systems. If you just need a simple step up to surround sound, seek an all-in-one package

☐ You get a balanced performance if you choose a system that's able to distribute equal wattage across the front soundstage

☐ Check that the package you buy has enough inputs at the back to connect all your AV equipment – from satellite receiver to VCR

☐ When buying a mini system, demand a demonstration to check if the rear speakers contribute sufficiently to the whole surround sound experience. Many mini system rear channels fail to perform

☐ Check that your system has the required amount of speaker wire

SURROUND SOUND PACKAGES ON TEST:

Aiwa Z-VR880	£400
Teac Powerstation 1000	£150
Sharp CD-C491H	£600
Sony MHC-RX11AV	£450



AIWA Z-VR880

Although this is supposed to be a mini system, the Aiwa Z-VR880 is a fairly large. For around £400, you get a hi-fi system with the kind of flashy light display that could quite easily double as an airport runway. But the key thing to remember is that the Z-VR880 also includes that all-important Dolby Pro-Logic processing and amplification circuitry built into it. So instead of the usual stereo speakers, you get a full five-speaker kit to position around your living room.

Although its gaudy design may put off many, the Z-VR880 does boast an impressive specification. It spreads a healthy 100W to the left and right front channels and 38W to centre and rears. The only thing to count against this impressive power output is that, on paper, it looks woefully unbalanced. Built into these enormous front speakers are bass boosting woofers and, at the back, there are two pairs of stereo inputs alongside the inclusion of Dolby Digital inputs (just in case you want to upgrade in the future). Other main features include the requisite CD player, tape decks and AM/FM tuner.

VERDICT: 14/20

VALUE FOR MONEY 1 2 3 4 5

FEATURES 1 2 3 4 5

PERFORMANCE 1 2 3 4 5

EASE OF USE 1 2 3 4 5

Contact: Aiwa, 0990 902 902



Although the Z-VR880 provided ample bass extension and a decent home cinema experience across the front end of the system, the rear channels struggled to be heard. On paper, it looked as though the Z-VR880 overloaded its front channels with power and, common with many other systems, neglected to cater for those who want the full surround sound effect.

TEAC POWERSTATION 1000

A year ago you couldn't move for affordable surround sound amp/speaker packages. They were the very latest home cinema sub-genre to be exploited to the max, and every manufacturer and his dog seemed to release a package of their own. But this year, the number of systems being released has tailed off dramatically.

Fortunately, there are still several packages around and one of the most recent is the Powerstation 1000 from Teac – an ultra-budget package that can serve both your home cinema and your PC.

For around £116, you simply won't be able to find a better value complete surround sound system on the market. Initially, you'll be mightily impressed by what you get for your money – a subwoofer with a built-in amplifier, two front speakers, two rear speakers, a centre

speaker and an infrared remote control.

Although the components are somewhat lightweight and little tacky (what do you expect for the money?), the system does give you a balanced output of 30W across the front soundstage and 15W to the rears. What's also impressive is that the Powerstation 1000 also boasts a number of sound modes to play with (Hall, Live and Theatre), and sports three pairs of stereo inputs to connect all your AV equipment up to. For the price, the inclusion of these features is a real boon.

But, during performance, its budget status started to shine through. Although it adds the required extra dimension and oomph to surround sound programmes on the PC, use it as your main home cinema centre and its weaknesses come to the fore. What it does do well is spray sounds around the soundstage fairly accurately, but it's just not powerful enough. However, if you have a small living room and are shopping on a budget, the Powerstation 1000 may still be worth an audition.



VERDICT: 16/20

VALUE FOR MONEY 1 2 3 4 5

FEATURES 1 2 3 4 5

PERFORMANCE 1 2 3 4 5

EASE OF USE 1 2 3 4 5

Contact: Teac, 0181 498 2100



SONY MHC-RX11AV

There's nothing wrong with flashy hi-fi systems – after all, the design of a system may influence what we buy and won't buy. For instance, many systems try to out-do each other by having as many flashing lights as possible on their exteriors just to catch our attention. Sony's MHC-RX11AV manages to out-gimmick everybody with a feature that you won't have seen on any other mini systems.

Not only does the MHC-RX11AV have everything a surround sound mini system should have (CD, tuner, tape deck, Dolby Pro-Logic processing and five surround speakers), it also boasts a bunch of buttons and dials on its front fascia that can be used to programme your own drum beats to accompany your favourite tunes. What this will do your home cinema-watching, who knows? What we do know is that it's an absurd, yet strangely enjoyable feature nonetheless.

Once you have gotten past programming your very own Bossanova, you'll be pleased to know that Sony hasn't forgot to make the MHC-RX11AV fulfil a home cinema fan's basic needs. In Dolby Pro-Logic it spreads 50W to the front pair, 25W to the centre and 12W to each rear channel, while there's a pair of stereo audio inputs and a subwoofer output around the back.



VERDICT: 17/20

VALUE FOR MONEY	1	2	3	4	5
FEATURES	1	2	3	4	5
PERFORMANCE	1	2	3	4	5
EASE OF USE	1	2	3	4	5

Contact: Sony, 0990 111999

In fact, the MHC-RX11AV's performance is as bright as the lights that flash on the front. Effects placement is good, overall sound chirpy and involving, with bass extension very commendable. All in all, it's a very entertaining system.

SHARP CD-C491H

Home cinema technology moves at a rate of knots – no sooner has the latest surround sound format established itself with the nation's mass market, than another one comes along claiming to be better. So it is with Dolby Digital. Although the only software encoded with Dolby Digital is American laser discs and DVDs, the format is widely recognised as a genuine step up from Dolby Pro-Logic. And, the good news is that Dolby Digital equipment is starting to come down in price too.

This is where Sharp's revolutionary CD-C491H mini system comes into its own. Although it includes all the usual hi-fi features and Dolby Pro-Logic processing you need to get the best out of your satellite system, it also claims to be the first mini system with on-board Dolby Digital processing. All for a respectable £600 (approx).

It looks like any other modern hi-fi system with futuristic aspirations, but comes with five sturdier-than-usual surround sound speakers and a stand-alone subwoofer. One of the real advantages of Dolby Digital is that it provides a dedicated subwoofer channel.

Otherwise, the CD-C491H boasts a raft of sound modes to jazz up non-Dolby encoded material, a gaggle of inputs at the back and plenty of little features designed to really exploit the surround sound source material of your choice.

What's great about the CD-C491H is that not only is the Dolby Pro-Logic performance one of the best on any mini system we've tested, but the Dolby Digital reproduction is also worth saving up the pennies for. Definitely the best mini system on the market.



VERDICT: 20/20

VALUE FOR MONEY	1	2	3	4	5
FEATURES	1	2	3	4	5
PERFORMANCE	1	2	3	4	5
EASE OF USE	1	2	3	4	5

Contact: Sharp, 0800 262958

INTERNATIONAL

528 CHIGWELL ROAD, WOODFORD BRIDGE, ESSEX IG8 8PA

D2 MAC CARDS

All cards inc. TV1000, Filmnet, Canal+,

PREMIUM SINGLE CHIP CARDS	£19
WAFER CARD (best quality)	£24
MILLENNIUM TWIN CHIP CARD	£29
QUADRA MULTIMAC II CARD	£39
APACHE MULTIMAC II WAFER CARD	£59
SEMINOLE MULTI-MAC II (The Best MMII Wafer Card Available)	£69
TV 1000 AUTO UPGRADING CARD <i>Special Offer</i>	£39
SATURN 5 ALTO UPGRADING	£159
NEW GEMINI TV1000 + TV3 AUTO UPGRADING	£69

SEMINOLE

MULTI MAC II WAFER CARD
(Huge Memory, All Known Codes)

only £69!

"They don't get any better than this one"

Send us your old D2Mac card and we will upgrade you with a Seminole card for only £49! (24 hour turn around)

**CARD
UPGRADES
FROM
ONLY £10**

DECODERS

PHILIPS 916	£99	<i>Special Offer</i>
PHILIPS 902 (D2 MAC)	£99 & £129	
THE OPTIMAC (D2 MAC)	£179 (Top quality Best Buy)	
CHURCHILL (D2 MAC)		
4 CARD READER	£249 (Simply the best there is)	
'Decoder & XXX Card from only £199'		
"All our Decoders are supplied with a Millennium Twin Chip Card free of charge"		

NEW CODE UPDATE LINE:

THE VERY LATEST UPDATE CODES FOR ALL CARDS - CALL NOW ON 09067 360 060

**EUROPE'S
HOTTEST
XXX
CHANNEL**

**4
HOURS
A
NIGHT**



European & American Films

**Subscription
ONLY! £99**

**BRAND NEW XXX
CHANNEL COMING SOON
CALL FOR DETAILS**

**7
NIGHTS
A
WEEK**



TRADE/EXPORT ENQUIRIES WELCOME "PHONE FOR DETAILS"

Tel: (44) 0181 504 6878 (9.30 am - 6.00 pm) Fax: (44) 0181 505 1389

E-mail: d2mac@dial.pipex.com (prices do not include p&p) Calls to the 09067 no. are charged at £1 per min at all times



SATELLITE CITY LTD

TELEPHONE: (44) 0181-923 9098 / (44) 0181-531 0111

FACSIMILE: (44) 0181-923 0099

27 PENNANT TERRACE WALTHAMSTOW LONDON E17 5BD

12 C508 MICRO CHIPS	FROM £0.79 + VAT
ALL PCB's FOR D2MAC	FROM £0.75 + VAT
1 CHIP PCB WITH DIL SOCKET	ONLY £0.20

PIC16 C/F 84 MICRO CHIPS	FROM £1.75 + VAT
PIC16 C622 MICRO CHIPS	FROM £1.85 + VAT
24L C65 EEPROMS	FROM £1.25 + VAT
24L C16 EEPROMS	FROM £0.79 + VAT

DIQUEST/HUMAX F1C DIGITAL DECODER TWIN CAM MODULE £255.00+ VAT

PHILIPS 916 D2 MAC DECODER TWIN CARD READER WITH FREE MM CARD £89.00

D2MAC RECEIVER DECODER with free mm card £109.00

ALL YOU NEED IS, 80 CENTIMETRE DISH, TO RECEIVE XXX AND THE LATEST MOVIES ON 1 DEGREE WEST

XXX CHANNEL CARDS on eutelsat 13 degrees east £99.00

XXX CARD & RECEIVER DECODER ONLY £179.00

ALL YOU NEED IS, 80 CENTIMETRE DISH, TO RECEIVE XXX CHANNELS

PHILIPS 916 D2 MAC DECODER WITH XXX CARD £169.00

SATURN AUTO UPGRADING CARD ON ALL CHANNELS ON 1 DEGREE WEST £149.99

80 CENTIMETRE DISH WITH LNB £60.00 MULTIMAC D2 MAC CARDS from £25.00

D2MAC CARD UPGRADES £10.00 GEMINI AUTO UPGRADING CARD ON TV 1000 £69.00

DIGITAL CARDS from £179.00

PLAYSTATION CHEAT CARTRIDGE ENABLES YOU TO PLAY USA & JAPANESE GAMES

WITHOUT SOLDERING ANY CHIPS ON YOUR PLAYSTATION ONLY **£15.00**



ALL CREDIT CARDS WELCOME



PRICES DO NOT INCLUDE POST & PACKAGING





Fab Five

A MULTI-SATELLITE RECEIVER CAN BE USED AS A POSITIONER WITH YOUR DIGITAL SYSTEM.

MARTIN PIPE EXPLAINS

If you appreciate a lot of TV choice, our traditional recommendation has been to invest in an analogue multi-satellite system. These consist of a motorised dish that can be steered between different satellites and a flexible set-top receiver/positioner capable of retrieving the variety of TV channels that they carry.

A multi-satellite system will bring in several hundred channels from around 30 satellites, whereas a fixed-dish analogue Astra system would bring in fewer than a hundred. Most of the Astra channels of interest in the UK are scrambled – you'll need a Sky subscription to get these. Conversely, most of the channels accessible with a multi-satellite system are unencrypted, and so free to view.

Among these channels are ones that specialise in music, entertainment and news – and there are, of course, dozens of foreign channels that will allow you to dip into other cultures and brush up your language skills. But what if you want to watch Sky? An interesting point. Almost all analogue Astra systems contain the Videocrypt decoder needed to unlock Sky's offerings – the same isn't true, however, of multi-satellite receivers. The five we're going to examine in this article are budget units, and only one – the Nokia – is Videocrypt-equipped. You'll need to purchase an external Videocrypt decoder for the others.

But then again, watching Sky doesn't necessarily involve analogue. We're now on the threshold of the digital TV revolution, although analogue satellite channels are likely to continue for between five and 10 years. Subscribers to Sky are being converted to the benefits of its digital service, and many mainstream viewers are replacing their old analogue equipment with Sky Digiboxes. But an inexpensive analogue multi-satellite system will, funnily enough, also boost the choice of digital channels available to you by acting as a motorised-dish controller (or 'positioner').

Astra 2A isn't the only satellite carrying digital TV broadcasting – others include Hot Bird, Astra 1A, Kopernikus and Hispasat.

A surprising number of those digital channels are 'free-to-air' – you should be able to receive them via your Sky Digibox, or with one of the many receivers specifically sold for free-to-air channels, if the dish is aimed at the appropriate satellite. That's where the multi-satellite system comes in.

BUYING TIPS

Helpful hints when buying digital satellite receivers:

- ❑ Serious multi-satellite reception requires a dish of at least 80cm in diameter
- ❑ Go for the 'quietest' LNB you can afford, particularly if you're stuck with a smaller dish
- ❑ A multi-satellite system will co-exist nicely with a digital receiver – a 'twin LNB' will serve both receivers independently
- ❑ If you want both D2-Mac and Videocrypt, choose a receiver that makes provision for both. Otherwise, you may need a switchbox
- ❑ Installing a multi-satellite system is an involved process – although you can DIY, professional involvement is more common. Expect to pay upwards of £150
- ❑ If you're a hi-fi or home cinema buff, go for a receiver equipped with genuine Wegener Panda-1 audio processing circuitry



Although a Digibox will receive many of these free

channels, it can't be configured to receive all of them. On the other hand, the more flexible free-to-air receivers aren't (yet) compatible with Sky Digital. Combining digital and analogue gives you the best of both worlds, and a system that should last you well into the next century. A hybrid system of this type would have a dual-output universal LNB on the dish. One of the outputs would feed the analogue receiver, the other the Digibox.

The five receivers we examined sell for under £300. With the motorised dish and dual LNB, none should have a street price of more than £500. Unless you're prepared to do it yourself, you should budget another £150 or so for installation. Note that the dearer receivers featured here offer more features, such as better decoder connectivity, and would be worth considering if you plan to watch more analogue services than digital ones. If you want an occasional look at analogue – using the multi-satellite receiver primarily as a positioner – opt for one of the cheaper models ■

MULTI-SATELLITE SYSTEMS ON TEST

Echostar SR200IP	£130
Manhattan LTP-7600	£129
Manhattan XLT-9900 Plus MkII	£249
Nokia SAT1800S Satscan	£280
Strong SRT-350P	£115



Echostar SR200IP

It may sell for £130, but you get a lot of receiver for your cash. Actually, that's not quite true – it isn't much bigger than the average Astra-only unit. What can't be denied is the feature count.

Starting from basics, the SR200IP gives you 250 TV and 250 radio channels across 50 satellite positions. Not the highest channel count on offer, but a 50-satellite memory is more than enough – particularly if dish positioning for that digital receiver is going to be its most frequent task. So what makes the SR200IP so special for the price? You get threshold extension (adjustable over 31 steps), a four-event VCR timer, flexible video/audio settings, wideband UHF modulator and the ability to work with almost any LNB. Or two LNBs to be precise, for Echostar has given us a pair of wideband (900 to 2150MHz) inputs. Magnetic and electromechanical polarisers are catered for, as is the 22kHz band-switching used by universal LNBs.

Unlike many multi-satellite receivers available, the SR200IP is DiSEqC 1.0/1.2-compatible. As a result, the unit will work with up to eight LNBs if they're connected via an appropriate configuration of switchboxes, or some of the DiSEqC motorised dish mounts available. Worth pointing out if you want to painlessly update a previously-upgraded Astra setup. But unlike with Astra receivers, there is no Videocrypt decoder – you'll need to buy an external decoder, keep your Astra receiver, or go for Sky Digital. The SR200IP's Scart socketry only makes provision for one



decoder, and so you'll have to buy a switchbox if you require (for example) both Videocrypt and D2-Mac. Other AV connections aren't quite as skimpy – there are TV and VCR Scarts, as well as stereo audio and composite video phono sockets. So far, so good.

Getting to grips with the SR200IP isn't easy. The menus are rather basic, and not particularly well-organised. The overall user interface is quite slow; it's possible to push buttons faster than the receiver can understand them! Bearing in mind that the SR200IP is aimed at the first-time motorised system buyer, the setup menus are rather confusing – and the manual doesn't make it any clearer. Get to grips with the SR200IP, though – the results are worth it.

This cheapie receiver is capable of yielding crisp, clean and accurate images. If signals are weak, then the threshold extension is called into effect. We found that it worked exceptionally well; better, in fact, than the implementations of some pricier equipment. Noise is greatly reduced, but at no great detriment to other visual aspects of the picture. Sound-wise, however, this receiver is only OK. Stereo audio is thin and hissy – there's only Wegener sound-alike processing – and mono

soundtracks were rather

sibilant on occasion. However, all things considered, it's a bargain ■

'It may sell for £130, but you get a lot of receiver for your cash'

ECHOSTAR SR200IP

Price: £130 (receiver only), £300 (with 90cm dish)

Features: 250 TV channels/250 radio channels; 50 satellites; DiSEqC-compatible; two wideband LNB inputs; 22kHz tone switching; threshold extension; 50µs, 75µs, J17 and Wegener sound-alike audio de-emphasis; four audio bandwidth modes, programmable between 25 and 500kHz; video inversion for C-band; on-screen display; four-event/2-week VCR timer; PIN-operated parental lock



Flexibility, excellent weak-signal performance



Only one decoder, user interface could be better

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

Contact: Eurosat 0181-452 6699





Manhattan LTP-7600

This compact new receiver, a cut-down version of the XLT-9900 (also tested), is clearly intended to compete head-on with the Echostar SR200IP. Indeed, they have similar specifications – 50 satellite positions, two wideband LNB inputs, 31-step threshold extension, onscreen tuneable UHF modulator and DiSEqC compatibility (albeit only version 1.0, which caters for 4 LNBs per input).

But the LTP-7600 does have a rather larger channel memory than the SR200IP – 600, to be precise. If a lot of analogue channel-surfing is envisaged, the Manhattan is perhaps a better bet. In terms of compatibility with outdoor equipment, things don't look quite so rosy. Unlike the Echostar, the LTP-7600 won't work with magnetic polarisers – although electromechanical (pulse-driven) ones are catered for. But for the average user, all of this is academic – the LTP-7600 generates the 22kHz band-

switching tones needed by cost-effective universal LNBs. Universal LNBs are essential if you want a hybrid analogue/digital setup – it's difficult to pair digital receivers with anything else.

Don't expect an internal Videocrypt decoder at this sort of price – there isn't one. AV connectivity is also similar to that of the SR200IP. There are Scarts for VCR, TV and decoder – yes, only one decoder is catered for.

'If a lot of analogue channel-surfing is envisaged, the Manhattan is perhaps a better bet'

Attaching a second decoder is made easier because there's a phono socket that offers the baseband video output. There are also phono sockets for composite video and stereo audio. Sadly, no event timer is included – this is one of the most obvious ways in which this receiver differs from the dearer XLT-9900. The configurable audio and video settings of both Manhattan models are similar, though – you get independent audio tuning, five audio bandwidths and 18/27MHz IF bandwidths (the Echostar is fixed at 27MHz).

The LTP-7600's menu systems are basic – they're easier to configure and use than those of the SR200IP. In performance, we found that with weaker signals the LTP-7600 isn't as good as the Echostar – sparklies and noise are intrusive. OK, you can switch on the threshold extension, but this isn't too effective and can indeed make pictures unwatchable. But with strong signals it's a different story. With these, you get the noise-free and dynamic pictures of the Echostar. We did find, however, that the LTP-7600 outperformed the SR200IP sonically. The Wegener soundalike circuitry is clearly better than the Echostar's, as stereo audio exhibits a fuller tonal quality. Mono soundtracks are also superior, although the maker's settings needed to be tweaked for best results. If you're into stronger (entertainment-quality) channels, such as those on Astra and Hot

Bird, you're advised to take Manhattan. Weak-signal enthusiasts on a budget, meanwhile, should consider the SR200IP ■

MANHATTAN LTP-7600

Price: £129 (receiver only), £300 (with 90cm dish)

Features: 600 channels; 50 satellites; two wideband LNB inputs; 22kHz tone switching; 18/27MHz IF bandwidth; threshold extension; 50µs, 75µs, J17 and Wegener sound-alike audio de-emphasis; video inversion for C-band; onscreen display; PIN-operated parental lock



Flexibility, value for money



No VCR timer, only one decoder

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

Contact: Eurosat 0181-452 6699





Manhattan XLT-9900Plus MkII

At under £250, this budget multi-satellite receiver sells for nearly twice the price of its little brother – yet it has 100 fewer channels than the newer model. There are, however, two decoder Scarts, and you can attach magnetic as well as electromechanical polarisers. So the XLT-9900 is compatible with all conventional multi-band LNBs, though such provisions are unlikely to interest anyone wishing to build a digital/analogue system.

Fortunately, both wideband LNB inputs are compatible with 22kHz-switched universal LNBs. And you get a signal strength meter to aid satellite-finding and peaking. But this meter is practically useless because nearly every channel lights up all bars – regardless of signal strength! You don't get internal Videocrypt, so if you're a Sky analogue subscriber don't forget that decoder.

As with the cheaper LTP-7600, the tuner's IF bandwidth can be switched from 27MHz to 18MHz for weaker signals. It is augmented by threshold extension, variable over 32 steps, which helps to resolve watchable pictures from barely detectable signals. Like the other multi-satellite systems featured here, the XLT-9900 is highly customisable by means of onscreen menus. Video settings like frequency, IF bandwidth, polarity and high/low band can all be programmed per channel. The audio settings are also highly flexible; you get seven audio bandwidths and independently tuneable subcarriers. J17 and 50/75µs de-emphasis modes apart, an effective Wegener sound-alike

is offered for narrow band mono and stereo soundtracks. Unusually, audio treble and bass adjustment is also provided. As with the other receivers tested, the XLT-9900's UHF modulator can be tuned via one of the menus.

Another menu invokes the VCR timer – a handy feature which isn't included on the stripped-down Manhattan. This can memorise up to eight events over four weeks. The XLT-9900 proved easy to configure and use. Performance is also of a high standard. Pictures are sharp, exhibit an excellent dynamic range and are almost free of noise.

Although colours are pleasing, they're not very vivid. The XLT-9900 performs well with weak signals, and its threshold extension implementation comes second only to the Echostar in terms of effectiveness. There's smearing, which is most noticeable on areas of high contrast – but the picture is watchable. Although the XLT-9900's audio circuitry isn't Wegener approved, the standard of the stereo sound produced is beaten only by the Nokia. Sadly, the XLT-9900 – which has been on sale for over a year now – has been eclipsed

by the cheaper Echostar and Manhattan receivers on value. But it's a good all-rounder for analogue ■



MANHATTAN XLT9900 PLUS MKII

Price: £249 (receiver only), £500 (with 90cm dish)

Features: 500 channels; 50 satellites; two wideband LNB inputs; 22kHz tone switching; 18/27MHz IF bandwidth; threshold extension; 50µs, 75µs, J17 and Wegener sound-alike audio de-emphasis; video inversion for C-band; onscreen display; signal strength display; eight-event/ four-week timer; PIN-operated parental lock

+ Flexibility, performance

- No longer quite the best value around

VALUE FOR MONEY

FEATURES

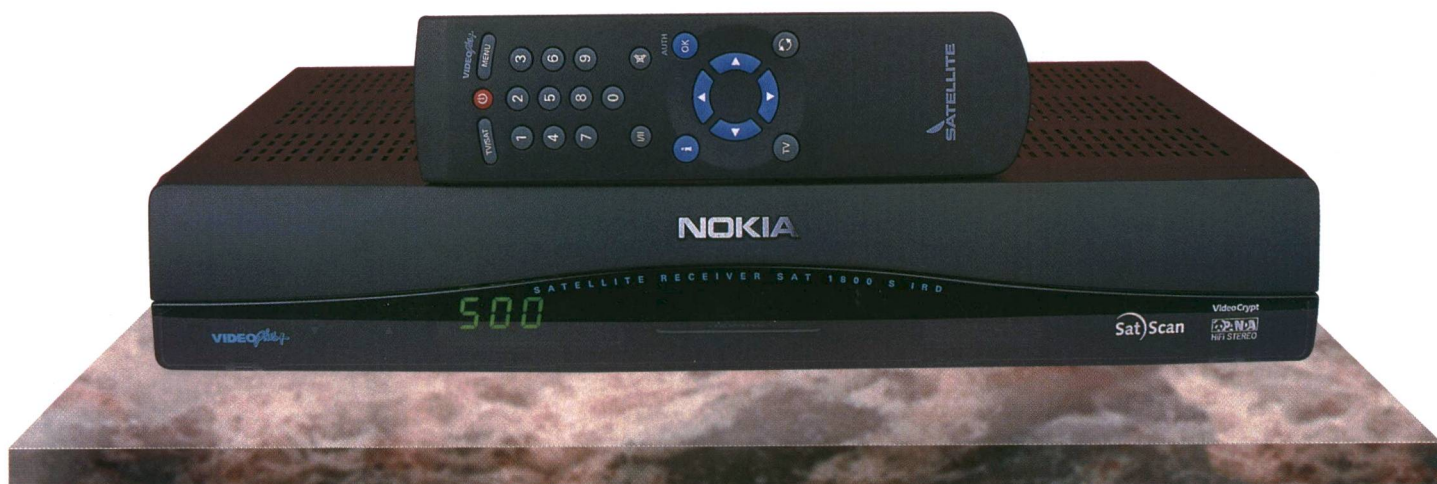
PERFORMANCE

EASE OF USE

Contact: Eurosats (0181) 452 6699

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5





Nokia SAT1800S

Satscan



'One can't fault the Satscan's ease of use and overall performance'

Although it looks like a standard Astra receiver, the SAT1800S is a fully fledged multi-satellite receiver – albeit a fairly unusual one.

Nokia has taken a standard SAT1800S Astra receiver and given it an internal positioner. But this one will only work with Nokia's Satscan mount, a device designed to motorise a standard 'fixed' Astra dish. If you want your multi-satellite receiver to work with a standard polar mount, look elsewhere. The Satscan does have two big advantages.

First, you get an in-built Videocrypt decoder – important if you want Sky analogue. A second decoder – for example,

D2-Mac – can be connected with a Scart. Second, installation is hassle-free.

Whereas the other systems tested require at least two cables to be routed to the dish, only one cable – the traditional LNB co-ax – is needed to interconnect the Satscan components. That cable carries signals from the LNB, together with control signals and power for the dish motor. On top of these are 22kHz band-switching tones and polarity selection voltages for the LNB.

In our tests, the system

worked without a hitch. DiSeqC, which features on two of the other receivers tested here, works on similar lines. But the Satscan is incompatible with DiSeqC. Despite its origins as an Astra receiver, the SAT1800S is flexible enough for multi-satellite reception in most ways. There are some reservations, though. The IF bandwidth is fixed at 27MHz, and there's no threshold extension. Clearly, this isn't the best receiver of the group as far as the weak 'enthusiast-quality' signals are concerned. On the plus side are two wideband LNB inputs, connections for a magnetic polariser – and excellent provisions for audio.

Subcarrier tuning and bandwidth are variable, and 50µs, J17 and Wegener Panda-1 de-emphasis modes are provided. Indeed, the SAT1800S is the only receiver with real Panda-1, making it the best-sounding receiver as far as stereo sound is concerned. Only digital satellite audio beats this!

The mount is easy to install and use. It will accommodate dishes of up to 1.2m in diameter, but 80cm should be sufficient in most cases. A fair 29 satellite positions can be 'remembered' by the Satscan positioner. As far as stronger signals are concerned, the Nokia probably delivers the best overall results of the group. Picture and sound quality are unrivalled – contrast, colour and fine detail all beat, by a gnat's whisker, the Echostar and dearer Manhattan models. The proper Wegener audio is clean, punchy and distortion-free. Weaker channels could be received, although they were spoiled by sparklies. So the fixed bandwidth and lack of threshold extension are missed. One can't fault the Satscan's ease of use and overall performance, but it's expensive once the price of the mount is considered ■

NOKIA SAT1800S SATSCAN

Price: £280 (receiver only), £530 (with 80cm dish)

Features: 500 channels; 29 satellites; Videocrypt; two wideband (920 to 2150MHz) LNB inputs; 22kHz tone switching; 50µs, J17 and Panda 1 audio de-emphasis; full onscreen display; eight-event, 1-year timer with Videoplus and VCR control; PIN-operated parental lock



Superb picture and sound, only one cable



Can't be used with standard polar mounts, poor with weak signals

VALUE FOR MONEY FEATURES

1 2 3 4 5

PERFORMANCE

1 2 3 4 5

EASE OF USE

1 2 3 4 5

Contact: Nokia (01793) 556000





Strong SRT-350P

No, it's not a misprint – this multi-satellite receiver really does sell for the price of a decent night out! Not so long ago, you couldn't even buy an Astra receiver for this amount. Cut corners? Surprisingly, no. The only real limitation of this receiver is that its positioner is extremely basic. It won't store satellite positions – instead, you have to press the remote's east and west keys until a channel on the wanted satellite appears.

This makes the SRT-350P less user-friendly as far as the integration of digital receivers is concerned. Or does it? You could always move the dish until the analogue channels carried by the wanted satellite appear; once the dish is in the correct position, your digital receiver should be able to decode the channel you're after. The accuracy of automatic positioning systems, like those fitted to the other receivers, tends to drift over time. With these, you'll have to peak the dish periodically and store the satellite position. The SRT-350P's positioner, conversely, encourages you to find the strongest signal when you change satellite. Peaking the dish

for the best possible signal, after you've found the satellite's rough position, becomes second nature quickly. Note that dish peaking can mean the difference between clear digital pictures and blue 'mute' screens.

The positioner may be primitive, but that's the SRT-350P's only real limitation. You get two 22kHz tone-capable wideband LNB inputs, compatibility with electro-mechanical (but not magnetic) polarisers, a wideband UHF modulator, fairly flexible stereo-capable audio circuitry and a generous helping of 400 channels. Surprisingly, there's also a choice of IF bandwidth, 32 steps of threshold extension adjustment and support for DiSeqC LNB switchboxes. Oh yes, and a VCR timer – in this case a four-event 28-day timer – is also provided. Note that

'This multi-satellite receiver really does sell for the price of a decent night out!'



timed programmes have to be on the *same* satellite! On the debit side, there's only one decoder Scart. If you want to add more than one decoder (note: Videocrypt isn't built in) you'll need to buy a Scart switchbox. Also at the back are Scarts for TV and VCR, plus phono AV outputs. Unusually, the SRT-350P also gives you a PC serial interface (for updating channels) and a programmable 12V switch. The latter is provided to drive external switchboxes.

The SRT-350P is easy to set up, but day-to-day use could be simpler. With 400 to choose from, selecting channels can be a pain. You can't group them, although you

can define a measly eight as 'favourites'. It's easy to find occasional transmissions like newsfeeds, but, of course, moving the dish or changing frequency can be done without the menus. Pictures from stronger channels are sharp, and colours are free of noise. On weaker signals, it's not as impressive. Sparklies intrude and, if threshold extension is engaged, white areas of the picture are badly smeared. Audio is as good as the Echostar's and, as with the Echostar, we saw splashiness and sibilance on some channels. The SRT-350P may be a bit limited, but it offers excellent value ■

STRONG SRT-350P

Price: £115 (receiver only), £285 (with 90cm dish)

Features: 400 channels; manual positioner; two wideband LNB inputs; 22kHz tone switching; 18/27MHz IF bandwidth; threshold extension; 50µs, 75µs, J17 and Wegener sound-alike audio de-emphasis; video inversion for C-band; onscreen display; four-event/four-week timer; PIN-operated parental lock.

+ Extremely cheap, competent performer

- Awkward to use

VALUE FOR MONEY

FEATURES

PERFORMANCE

EASE OF USE

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

Contact: Strong (UK) Ltd (0171) 491 7474





CONCLUSION

All of the five multi-satellite systems we've looked at win in some way or another. Your eventual choice should reflect the way in which you'll use it. In terms of the best AV performance, you can't beat the Nokia – which also happens to be the easiest to set up. It's also the only receiver with in-built Videocrypt and it is perhaps the one to go for if you plan to continue subscribing to analogue Sky for the foreseeable future. However, the Nokia is expensive – and doesn't perform particularly well with weak signals.

In this area, our favourite is the Echostar SR200IP. This inexpensive unit has a superb tuner, and its threshold-extended pictures



Echostar SR200IP: has a superb tuner

beat those from receivers selling for several times the price.

Unfortunately, it's not that easy to use, and its audio quality is bettered by some of the other units tested here.

The Manhattan XLT-9900 Plus MkII is a good overall unit. Since its



Manhattan XLT-9900 Plus MkII: a good overall unit

introduction over a year ago, this budget receiver has sold extremely well.

Unfortunately, its price is no longer as attractive as it was, in the face of competition from Strong, Echostar and – ironically enough – Manhattan. If you would like the XLT-9900's performance, but at a



Strong SRT-350P: capable of a good performance

lower price, then the cheaper Manhattan model – the LTP-7600 – deserves a place on your shortlist. This cut-down version dispenses with the VCR timer and multiple decoder socketry, but is almost half



Nokia SAT1800 Satscan: the best in terms of AV performance

the price. Of course, if out-and-out economy is your overriding priority, the Strong SRT-350P should be at the top of your list. It's well-featured and capable of a good performance – but fairly user-unfriendly. The manual positioner is directly responsible for this, making the SRT-350P a less-than-ideal choice for hybrid digital/analogue setups ■

Keene Electronics

mail order

MARANTZ RC2000 Mk2

SUPER REMOTE

New from the USA comes the Marantz RC2000 mega remote control.

This is the business – just look at the spec:

- Controls up to 10 devices
- Each device can be renamed
- 32 direct function keys per device, all of which can be renamed!
- Four programmable macros with up to 20 steps per macro
- Auto backlit display and keys with adjustable time on setting
- Direct cursor control for on-screen displays (ideal for digital satellite etc)
- **"BEST BUY" Home Cinema Choice, October 98**

Order code [MRC20002] Keene special price just £144.99

Note that this is a 'learning' remote – you will need your original remotes to 'teach' it with



LEADS AND CABLES

Just a selection from our vast range

If you need leads you need our free catalogue!



STERLING
CABLES

The first range of AV leads produced specifically for home cinema applications, featuring gold plated end connectors and oxygen-free copper cable for audio, low loss co-ax cable for video. Other lengths available.

End connector combinations	Lengths	0.75m	1.5m	3m	5m
1 phono plug / 1 phono plug (AC3)		[SG11] £9.99	[SG12] £12.99	[SG13] £15.99	[SG14] £19.99
2 phono plugs / 2 phono plugs		[SG21] £9.99	[SG22] £12.99	[SG23] £15.99	[SG24] £19.99
3 phono plugs / 3 phono plugs		[SG31] £12.99	[SG32] £15.99	[SG33] £19.99	[SG34] £24.99
S-VHS plug / S-VHS plug		[SG41] £9.99	[SG42] £12.99	[SG43] £15.99	[SG44] £19.99
Scart plug / scart plug		[SG51] £12.99	[SG52] £15.99	[SG53] £19.99	[SG54] £24.99
Scart plug / 3 phono plugs (switchable in/out of scart)		[SG61] £12.99	[SG62] £15.99	[SG63] £19.99	[SG64] £24.99
Scart plug / 6 phono plugs		[SG71] £15.99	[SG72] £19.99	[SG73] £24.99	[SG74] £29.99
Scart plug / S-VHS plug + 2 phono plugs, signal into scart		[SG81] £15.99	[SG82] £19.99	[SG83] £24.99	[SG84] £29.99
Scart plug / S-VHS plug + 2 phono plugs, signal out of scart		[SG8A1] £15.99	[SG8A2] £19.99	[SG8A3] £24.99	[SG8A4] £29.99

**** High spec custom cables made to order in any length ****

Firewire IEEE1394 cables

4 pin to 4 pin 2.0m	[KLFW1]	£34.99	4 pin to 6 pin 2.0m	[KLFW3]	£34.99
4 pin to 4 pin 4.5m	[KLFW2]	£44.99	4 pin to 6 pin 4.5m	[KLFW4]	£44.99

Optical leads

Toslink connector to 3.5mm (Minidisc) plug	Toslink connector to toslink connector	3.5mm (Minidisc) plug to 3.5mm (Minidisc) plug
1.0m [KLD011] £9.99	1.0m [KLD021] £9.99	1.0m [KLD031] £9.99
1.5m [KLD01] £12.99	2.5m [KLD0225] £14.99	2.5m [KLD0325] £14.99
2.5m [KLD0125] £14.99	5.0m [KLD025] £19.99	
5.0m [KLD015] £19.99		

Rio MP3 Music Player

A revolution in personal audio, the Rio is a completely solid state (no moving parts) digital audio player. Unbelievably tiny, it's no bigger than an audio cassette (90 x 74 x 16mm), weighs only 70g, and one AA battery gives up to 12 hours use, yet with MP3 compressed audio it can store up to an hour's play of near CD quality sound in its internal 32MB flash memory.

Because there are no moving parts there's no skipping or jumping, whatever you're doing. Simply use your PC to MP3 encode your favourite music, or download new material in MP3 format from the internet, free (please observe copyright restrictions). Complete with memory card slot for additional storage capacity, PC docking kit, MP3 software suite (requires Windows 95/98), headset and battery order [RIO] £189.99



All prices include standard delivery. Superfast options 2 day courier delivery add £3.00, next day courier delivery just £5.00 extra (UK mainland only)



'ANGEL' remote control

Superb multi-functional remote control. Complete learning mode operation ensures full compatibility with all devices. Massive LCD touch screen, backlit when dark, provides custom key layout for different devices. Supports macro commands. Fantastic home cinema companion, this is the king of multi-device remotes. Order code [ANGEL] £79.99



Order by telephone any time. No answering machines, speak to real people 24 hours a day, 365 days a year (technical and customer service calls 9.00 – 5.30 Monday – Saturday only)

Tel 01332 830550 Fax 01332 830551

More exciting new products, bargains and more on our Web site at www.keene.co.uk



KEENE
ELECTRONICS

MAIL ORDER WAREHOUSE & SHOWROOM
CALLERS WELCOME 9.00–5.30 MON–SAT
UNIT 9 OLD HALL MILLS BUSINESS PARK
LITTLE EATON DERBYSHIRE DE21 5DN UK

Lektropacks

With the ever-changing complexity of high quality audio and video equipment, the Lektropacks range of products is designed to enable you to gain more enjoyment from all your home entertainment and multi-media systems.
Connect - Convert - Control - Copy - Send & Switch.

HOME ENTERTAINMENT MAIL ORDER ACCESSORY SPECIALIST

COPYMATE

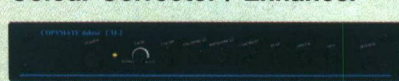
Video Copy Enhancer



Now works with all Digital Satellite systems

COPYMATE DE LUXE

Colour Corrector / Enhancer



Ideal for all Camcorder enthusiasts - All the features of the CM-1 plus additional colour correction facilities. Can also improve pictures from DVD, LD, VCR, Projection TV, etc. Corrects White Balance errors.

- * Controls for Sharpness, Colour, Brightness, Contrast, Red, Green, Blue, Fade.
- * 4pin S-VHS + RCA video Inputs/Outputs
- * CM-2 suitable for PAL or COR-7 version for NTSC

VIDEO SENDER

Transmit any Video signal plus Stereo audio from Satellite, VCR, DVD, Computer, etc. to any TV in another room.

- * NO CABLES TO RUN.
- * Simple PLUG & PLAY system
- * NO tuning
- * Crystal clear Picture & Sound
- * Patented Hidden Antenna for better reliability
- * 2.4GHz approved frequency
- * Up to 200 yds range
- Includes - Transmitter + Receiver + 2 Mains adaptors + cables / Scart adaptors and simple instructions



Amazing New product

VS £99

GREAT WITH DIGITAL SATELITE OR COMPUTER DVD SYSTEMS

Videosender plus system has an additional Remote Control Extender - allows you to change channels or control any other functions from another room.

VSplus £125

You'll get Perfect Video copies every time with CM-1 or CM-2

CRYSTAL CLEAR PICTURES - GUARANTEED!

WORLD STANDARDS TRANSCODERS Convert NTSC - PAL - SECAM signals from DVD, LD, Videotape, Camcorder, Games, etc.

Whether you want to view or record Tapes and movies from anywhere round the world our range of converters will give you high quality pictures every time. All Digital Standards converters have built in Time Base Converters and give as good results as many professional units costing several times the price. We have recently introduced a model that allows you to copy from NTSC playback only VCRs, and we now supply a Multistandard VCR with built in converter that works on all World TV systems.

Compact model



PAL - NTSC 3.58
NTSC 3.58 - PAL
2 Mb Memory

Automatically selects input type
IDEAL FOR ALL MULTI-REGION DVD PLAYERS

CDM-620 £299

Broadcast quality



PAL - NTSC 3.58
NTSC 3.58 - PAL
8 Mb Memory S-VHS / Composite

CDM-820 £699

Analogue Converters

Suitable for Satellite Broadcasts, Games, and some video applications.



Changes the colour information only, i.e. If you can see a clear STABLE unscrambled Black and White picture on your TV - the analogue converters will change it to full colour.

PLEASE NOTE: NTSC versions will not allow you to record the signal.

CN-100P	NTSC-PAL	£79.95
CP-100N	PAL-NTSC	£79.95
CS-100P	SECAM-PAL	£89.95
CP-100N	PAL-SECAM	£89.95

World Standard VCR



New

PAL - PAL M - PAL N - NTSC 3.58 - NTSC 4.43 - SECAM L - MESECAM

MCV-1S £699

Copy from NTSC Playback VCR's



Use your NTSC playback VCR to copy tapes from the USA onto a UK PAL VCR

PAL60 - PAL50

CDN-615P £299

Miniature Miracle

Our smallest high quality transcoder-fits in the palm of your hand - converts all World Standards - amazing quality conversions - 4Mb memory



CDM-630 £499

PAL60 - PAL - PAL M - PAL N - NTSC 3.58 - NTSC 4.43 - SECAM L - MESECAM

New

A/V Distribution Amplifiers

You can make multiple loss-free copies of all your favourite camcorder videos.

CVD-1000 £89



Allows you to connect any one of four stereo A/V sources to up to four VCR's or TV sets. Push-button selection - RCA input/output connections.

VM-10 £299

10 way unit with loop through - units can be linked to make up to 500 copies at the same time. BNC video + stereo RCA inputs

SC-AMP 1 £199

10 way Scart A/V amplifier with loop through for further units.

TV Magnifier Screens

Upgrade your TV and get a real Home Cinema experience at a fraction of the cost of buying a new TV - and protect your eyes at the same time.

Increases your TV picture up to 50%. Available in 5 sizes to suit any TV's from 14" to 34"



Model No.	TV Size	Enlarge to (inches)	Actual Size (cms.)	Price
CT-22	13-14	22	40 x 36	£29.95
CT-25	16-20	25	52 x 41	£35.95
CT-30	20-26	30	62 x 48	£49.95
CT-37	26-29	37	75 x 55	£79.95
CT-41	30+	41	86 x 63	£99.95

A/V Control Centre

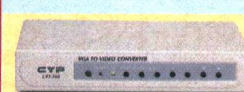
A simple and effective solution to the spaghetti hell found around the back of your telly!



A smart switch box that lets you connect all your gear - VCR, TV, LD, DVD, Satellite, etc. into one central control and copy, view, via remote control. It's the easiest way of hooking up all your equipment 4 Scart sockets and 2 sets of RCA sockets. Can also be used as a 4-way Distribution amp.

AV-400 £89

PC to Video Converter



Turn any PC image into a crystal clear video image - View on a TV - or Record on a VCR

This exciting new PLUG AND PLAY converter is ideal for Education or Business Presentations - just hook up to your VGA output on your Laptop or PC - connect to the video input of your TV or Big Screen projector and enjoy a Jumbo display of any computer image. Remote control for Zoom, Position, Overscan, etc.

CPT-360 £199

Remote Controls & Extenders

Wizard £25

Replace lost or broken controls - the new Wizard 8 way will work with over 95% of all AV equipment.



New

For the easy life - one remote to control all your kit. And you can control your Satellite or VCR from your bed!

Angel £80

Full learning 8 way unit with backlit LCD touch screen control - the ultimate Multi-media remote.



RC2000/2 £149

Marantz 10 way super learning control



To change channels from your bedroom you can use your existing remote with the Powermid system - else the new Powermid plus system - consisting of an 8way Wireless remote control and an infrared receiver.

Powermid £59.95

Powermid+ £59.95

Video to VGA Converter

Designed for use in broadcasting, security monitoring, science and industrial monitoring, the unit will convert any VGA computer monitor into a full screen video display. By connecting the CM-300 to a PC monitor you can view composite video signals directly from a VCR or Video camera. A PC/Video switch enables you to simply go from PC to Video use with the same monitor. The built in audio amplifier and loudspeaker will allow you to hear the video soundtrack.



CM-300 £139

Cables & Connectors

Custom made to measure cable service • Over 60 different configurations of off the shelf - high quality cables • Pure OFC cables with 24 karat gold plated connectors • Loads of useful adaptors for all types of VCR, TV, Camcorder, LD, DVD, Dolby Surround and Home Cinema set-ups • New fibre optic and Digital cables, etc.



Our new Intersert Scart Adaptor allows you to retain your existing Scart-Scart link and connect a Hi-fi, Camcorder or Videosender system. Standard grade version BT29 £9.50 Pro Gold plated superior BT929 £19.00

Get your free colour catalogue

More exciting products -

TV Tuner, Pattern Generators, Analogue Converters, Line Doubler, Digital Video Mixer, Speaker Switches, Scart Switches, Phono Switches, S-VHS Switches, Video to VGA Converter, Data Switches, Scart Cables, Fibre Optic Cables, Handy Adaptors, etc.

Call, Write or Fax - NOW

to order any product

24 Hour Credit Card Order Line
All Major Credit / Debit Cards accepted

Tel: 0181 572 9737

Fax: 0181 569 4029

All units covered by our FULL MONEY BACK GUARANTEE.

LEKTROPACKS, Windsor House, 141 Bath Road, Hounslow, Middlesex, TW3 3BT, U.K.

Email: Lektropacks@btinternet.com

Website - www.lektropacks.co.uk.

UK Carriage and Handling Charges : RM 1st class Add £5 per order ; Next working day Courier Add £10 per order. Overseas - please call (TV Screens add £10 - UK mainland, £20 for Highlands, Ireland, etc.)

How can I get Sky One?
I really missed my Friends
It is on digital now...

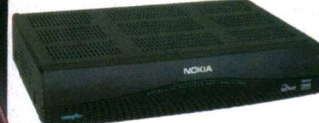
Sky is On Digital? Since when?
In fact not only Sky One, they have
at least 150 channels by now

On Digital can have 30
channels - if they are lucky!
What do you know? Even
old analogue gets
more than that...

When nothing seems to make sense any more...
perhaps it is time to talk to an Authorized Agent for Sky Digital

-Techtronics-

Analogue Receivers



NOKIA
Nokia 8003CS £319
PAL/MAC IRD, EC M/S/S*, remote
control, integrated positioner,
single cable operation, twin card
readers



ECHOSTAR
Echostar LT8700 £679
(VC/MAC/Panda/UHF)
Echostar LT8700 £599
(MAC/Panda/UHF)
Echostar LT8700 (VC only) £499



PACE
Pace MSS-508IP £258
PAL/VC IRD, 500 channels, twin
LNB inputs, twin cards slots,
2 decoder loops, remote control,
integrated positioner. Ideal starter
model for motorized viewing

Pace MSS-100 £124
VC IRD, 250 channels, wideband
tuner, remote control, Panda

Pace MSS-300 £162
VC IRD, twin LNB inputs, wideband
tuner, 250 channels, remote
control, Panda, 3 scarts

Pace MSS-1000 £285
VC, twin card slots, Dolby Pro Logic,
twin LNB inputs, remote control,
500 channels, 4 scarts, Panda

Pace MSS-466G (D2 Mac) £199
PAL/MAC IRD, d/d2mac, EC M/S/S*,
twin card slots, 250 channels,
Disecq, remote control



STRONG
Strong 1500 Mk11 £219
Low threshold 4dB, integrated
positioner, 400 channels,
50 satellites, Hi-Fi sound, twin LNB
inputs, 2 scarts, 2 decoder loops.
VC optional POA

Cambridge
PAL/MAC satscan IRD £249
Internal Positioner, Satscan,
Twin card reader, 3 scarts.

Startrak
Startrak 850 £199
Low threshold Receiver, internal
positioner, 1000 channels,
64 satellite positions, 3 scarts
remote control, auto-tune.
VC option £POA

SKY
DIGITAL
Astra 28° E
Hardware: Digibox
Subscription service to Sky
Digital available
96 subscription packages
Please send me a free subscription form ☐

Special Service in London area
Tel 01784 740357 Fax 01784 740396

FILM FOUR 4 More than 500
independent films a year
£5.99/month ☐

MU TV MUTV brings you closer to all
the players and staff that make
Manchester United so famous
£4.99/month ☐

MUSIC CHOICE
34 audio channels of digital quality
music, each catering for a different
musical taste, including
Progressive Dance, Singers &
Standards, Opera & Vocal Works etc
£4.99/month ☐

Disney
Excellent all round family
entertainment including movies,
comedy and classic animation.
£4.99/month ☐

Adult CHANNEL £7.99/month
Adult CHANNEL £65.00/year
Adult CHANNEL £6.99/month

SKY
Astra 19° E
Decoder: VideoCrypt 1
Subscription service to Sky analogue
available.
5 subscription packages
Please send me a free subscription form ☐

FILM FOUR 4
£5.99/month ☐
Racing Channel
Horse racing programmes
from SIS. 8 hours daily
£20.00/month ☐
Disney Channel
£4.99/month ☐

Zee TV
Arguably the most
amazing singing and dancing
channel on earth!
£14.99/month ☐
Adult CHANNEL £7.99/month ☐
Adult CHANNEL £65.00/year ☐

Name:
Address:
Postcode: Tel:
Date: Signature:

Payment by credit card
☐ VISA (Number in block letters please)
☐ MasterCard Expiration Date: (MM/YY) 00/00
☐ SWITCH
Sky Viewing card number
(if you already own one): 0000 0000 0000



Techtronics UK Sales Office
Tel 01778 562 920
Fax 01778 561 174

Katesbridge, Thurlby, Bourne, Lincolnshire PE10 0EN, UK

International Sales Office:
General: +44 1762 311921
Technical: +44 1762 311925
Trade: +44 1762 311923
Fax: +44 1762 311922

Digital Receivers



ProDX 3300A £329
Free to air analogue & digital receiver. Channel naming, MPEG2 DVB compliant, CE approved SCPC, support auto and manual PID entry, low threshold. Top review by Wot Sat (Jan 99, page 42)



Nokia Mediamaster 9200 £340
Nokia Mediamaster 9200 £395
Including Irddeto CAM
Nokia Mediamaster 9600/9602 £369

Humax



Echostar



D2 MAC Decoders



Philips BDE-353 D2 Mac £230
EC M/S/S*, twin card slots, wide screen, teletext, remote control, scart loop through, TV scart output, RGB output



Europlus £129
EC M/S/S*, M/S autoswitching, remote control, teletext SVHS Out, Audio L/R RCA
Pace D-155 £179
EC M/S/S*, twin card slots, teletext, scart loop through, stereo output

Other Decoders



RAI (Discret) £99
For all Italian football
VideoCrypt (Vc1) £40
VideoCrypt (VC2) £40
VideoCrypt (VC1&2) £80



Wafer cards

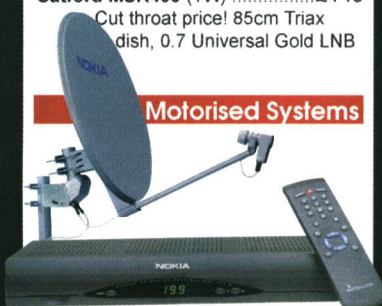
from £2.75
we sell more than anyone else in Europe

Special Bonus Offers

Europlus D2 Mac decoder £89
(with any motorised system)

Fixed Dish Systems

Pace MSS-466G (1W) £249
PAL/MAC IRD, 85cm dish, 0.7 universal LNB
Satford MSR400 (1W) £149
Cut throat price! 85cm Triax dish, 0.7 Universal Gold LNB



Motorised Systems

Nokia 8003S Satscan 85cm £399
PAL/Mac IRD, Satscan motor mount, single cable operation, 0.7 Universal LNB, installation kit
Pace MSS-100 85cm £299
VC IRD, external positioner, polar mount, mini-actuator, 85cm dish, 0.7 univ LNB
Pace 508IP 85cm £359
Triax dish, polar mount, wall mount, pole, 0.7 Universal LNB, 10 inch actuator, cable and fittings
Pace 508IP 1m £379
As per 85cm except with 1m alloy dish
Pace 508IP Unigold 1m £459
Unigold 128 H-H mount + motor, 1m dish, 0.7 Universal LNB cable and fittings
Pace 508IP Unigold 85cm £419
as per 1m, except for 85cm dish
Strong 1500 MKII 1m £375
12 inch actuator, 1m alloy dish, polar mount, 0.7 Universal LNB, cable and fittings
Echostar LT8700 1.2m £990
VC/EC/Panda/UHF, 1.2m Channel Master Dish, polar mount, 0.7 Universal LNB, 12 inch actuator, cable and fittings, wall/ground mount

Positioner

Pace MSP 200R £105

Dishes

Cober1m alloy dish £49
High gain, better than Lenson Heath
Triax dish 85cm high gain £34
Channel Master 1.2m £99
Lenson Heath 48cm £39.99
With Universal LNB, high gain including 0.7 Universal LNB

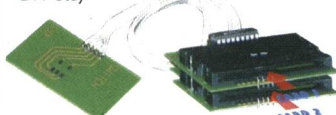


LNBs

Cambridge 0.7 Universal AE54
1x £19.50
2x £38
ALPS 0.8 Universal LNB £20
ALPS 0.8 Universal Twin LNB £49
ALPS 0.8 Universal Quad LNB £69
MTI Twin Universal 0.7 £35
Cambridge Platinum Univ. 0.6 £24.99

Other accessories

Irddeto Auto Switch £35
For any 2 Irddeto cards (Multichoice, Df1 etc)



Interesting Devices

Digital DashMaster £1170
Comprehensive Reprogram digital dashboards
Laser Jammer £399
Brand new, exclusive to us in the UK. Jams traffic laser guns/videos
DVD Multimod from £29.99
-Enhanced DVD players to work with discs from all 6 zones
-DIY kits available
-Quick turn-around professional installation service available
-VCR Mode: stop Macrovision from interfering with projectors and making backup copies on tapes

TV 1000

1°west



D2 Mac Smart Cards

Saturn V **new** £149
Original Eros card (1 year) £129
PIC84 Wafer Card £10
MM2 Gold Wafer £35

D2 Mac Update Infos

www.techtronics.com/update.htm
Codes on Premium lines (max 50P/min)
Tel: 0336 411206 Fax: 0336 416176

Upgrade Service

D2Mac cards £5
CTU900 upgrade £39
Enhanced picture and original card compatibility

Programmers

Millenium Programmer £39
Card reader and ZIF socket
User friendly
WIN95 software, autodetects cards



Universal Programmer £74
Includes serial & parallel cables
Programs PIC, COP, eeprom, BPSC and other smart cards
Serial cable for Millenium Prog £4.99
Power Supply (UK only) £7.99

Blank Cards/Components

PIC16F84 wafers from £2.75 +VAT
MM2 Gold Wafers from £3.50 +VAT
16F84+24LC16B
PIC16C84/16F84 chips (SM/DIL)
10+ £1.85 +VAT ea
24C16 Eeprom (SM/DIL)
10+ £1.30 +VAT ea
PIC/Eeprom PCBs (all types)
10+ £1.00 +VAT ea
Season PCBs 10+ £1.00 +VAT ea
DIL sockets for 16C84
10+ £0.10 +VAT ea
DIL sockets for 24C16
10+ £0.08 +VAT ea
Smart Card readers
10+ £0.99 +VAT ea
12C508 chips
10+ £0.99 +VAT ea
10+ £0.69 +VAT ea

Actuators

Echostar or Jaeger
10 inch £42
12 inch £45
18 inch £43
24 inch £65

Buy Now, Pay 6 months later

☺ 0% Finance on any item over £100 Subject to Status. Written Details available

☺ TRADE welcome

☺ Price match - we will not be undersold

☺ Prices include VAT unless otherwise stated

www.techtronics.com

Secure online shopping

Latest news

Product support



Credit card surcharge 5%, debit cards no surcharge

That sinking feeling

Last year *Titanic* fever gripped the world, and this year the phenomenon will linger on, thanks to the film's premiere on the Sky Box Office channels in April. It's the kind of three-hour epic that manages to sustain interest and make people cry – some people have even called it a classic.

The film, which recreates the sinking of luxury cruiser *Titanic* on her maiden voyage, made superstars of Kate Winslet and Leonardo DiCaprio and won a hatful of Oscars. Although there are plenty of ground-breaking effects to admire, it's essentially a love story.
Sky Box Office, April



Spring on

Saving face

Action director John Woo has gained a reputation for making sizzling high-octane films that mix the best special effects with his Hong Kong martial arts background.

In the entertaining *Face/Off*, he directs Nicolas Cage and John Travolta to ham it up as they battle each other. In the beginning Travolta is the good cop chasing bad man Cage – but thanks to revolutionary surgery they swap faces and live each other's lives. Confused? You will be!
Sky Premier, May



No plain Jane

Demi Moore always likes to play powerful women (*Indecent Proposal* and *Striptease* spring to mind), and in *GI Jane* she takes this to extremes.

Directed by the acclaimed Ridley Scott, *GI Jane* sees Moore go to train with the US Marines. She is the only woman in a man's world and finds the going physically tough – and the treatment she gets from her fellow soldiers also proves hard to take. This silly but enjoyable film sees Demi shave her head and stick it to the big boys.
Sky Premier, May

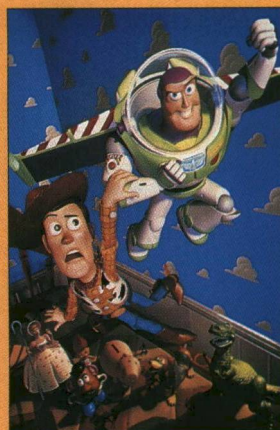


Toys for the boys

Although it has been several years coming, and many of you have probably seen it by now, the Disney Channel has a premiere of *Toy Story* as its big highlight for April.

The first 3D-animated cartoon, *Toy Story* will not only appeal to kids because of the vast array of cool toy characters on show, but adults will love it too for its sophisticated and universally appreciated humour.

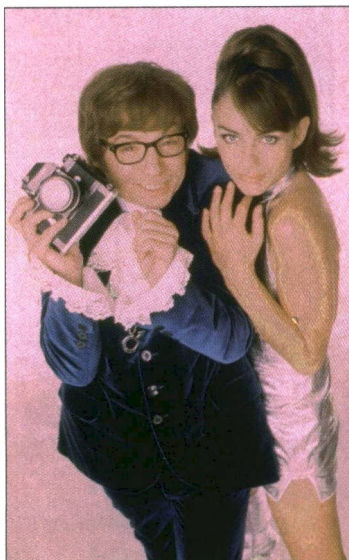
You can follow the adventures of space ranger Buzz Lightyear (who really does think he's a space ranger) and wimpy old Woody the cowboy sheriff (who tries to convince Buzz he's just a toy) as they cause mayhem in a world where toys come to life when the kids leave the bedroom. Terrific stuff.
Disney Channel, April



Groovy, baby!

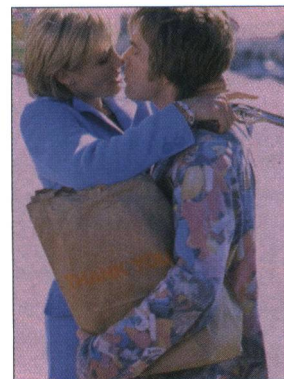
One of the best comedy films of the 1990s is spoof spy film *Austin Powers: International Man Of Mystery*.

It stars Mike Myers (of *Wayne's World* fame) in dual roles – both hero Austin Powers and his nemesis Dr Evil. It also stars the scrumptious Liz Hurley as the uptight secret intelligence girl who has to guide our hapless hero through the 1990s. You see, Austin was a mover and shaker during the Swinging Sixties in London, but froze himself in order to fight the similarly frozen Dr Evil in the 1990s. If you love daft humour, then Austin Powers is for you.
Sky Premier, April



Brit invasion

When the team behind British cult hits *Shallow Grave* and *Trainspotting* went to the US for the first time, *A Life Less Ordinary* was the result. Part-funded by Channel 4, it stars current wunderkind Ewan McGregor as a hapless kidnapper and Cameron Diaz as the spoilt rich wife he snatches away. Things don't go as planned and this screwball comedy will keep you glued to the screen.
Film Four, April



satellite

First contact

April is a cracking month for movies on Sky Premier. Alongside several excellent films is *Contact* – an outstanding sci-fi film from the director of Oscar-winning *Forrest Gump* (Robert Zemeckis) and starring the ever-watchable Jodie Foster.

It dramatises the best-selling novel by Carl Sagan and tells the story of an obsessed signal tracker who is convinced that there is life in other galaxies. When she and her tracking team receive signals from outer space, things goes barmy. She meets a handsome theologian, re-examines her spiritual beliefs and gets to test drive the spaceship the alien communication asks her to build.

Most sci-fi films rely on special effects but *Contact* has a solid story and fine performances.

Sky Premier, April



A right Charlie

When *Charlie's Angels* hit our screens in 1976, everyone's favourite glamorous crime-busters Kelly, Sabrina and Jill became instant pin-ups. The girls, hand-picked by mysterious squillionaire Charlie (voiced by *Dynasty* star John Forsythe), are hired to fight crime in places as diverse as beauty contests and cow ranches.

This genuinely kitsch cult show introduced many a young boy to his first TV crush and should be a hoot this time around.

Catch the first series.

Granada Plus, April

Seeing the future

Over the past 10 years, *The Simpsons* has established itself as one of the best and consistently funny shows on TV. Now the creator of *The Simpsons*, Matt Groening, is back with a new cartoon that is being mooted by Sky for broadcast on Sky One.

Futurama tells the story of a man who wakes up on New Year's Day, 2000, only to find himself propelled 1,000 years into the future, with just a sex-obsessed robot called Bender for company.

Sky One, May



Home improvement

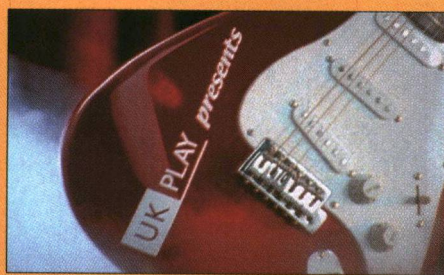
What a great idea! Teen channel Trouble, obviously influenced by the current thirst



for DIY and makeover shows, has a new show in April called *Room Raiders*. Teenagers get the chance to ask their friends to come up with ideas for a surprise

makeover for their bedrooms. As the experts get to work, the teenager in question cannot see the work until they have finished.

Trouble, April



Quirky gem

Some radio comedies don't transfer well to the small screen. In the case of award-winning *The League Of Gentlemen*, the move to TV has actually enhanced it.

Telling strange and macabre tales from a small country village called Royston Vasey in the middle of nowhere, characters have hideous faces and the humour is deliciously dark and warped.

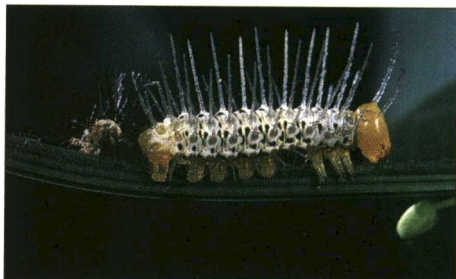
UK Play, April

Bugged out

Inspired by the success of Disney's *A Bug's Life* (a cute animated look at the insect underworld), the National Geographic Channel is to show a 13-part documentary about real bugs' lives, starting in April.

Insectia, presented by George Brossard, gains access to their realm and examines how they have evolved and lived (and indeed flourished) alongside plants and humans.

The National Geographic Channel, April



Your Best Shot

Do you want a magazine that answers the questions **YOU** ask and gives you the info **YOU** want to know?

Every issue, **Video Camera** gives it to you straight with thorough, no-nonsense tests of all the latest camcorders and video equipment, detailed features for beginners and enthusiasts, plus the UK's biggest and best buyer's guide. There's also a brand new section that tells you all you need to know all about digital cameras.

Video Camera offers the best buying advice around. Whether you're getting into videomaking for the first time or upgrading your existing gear, our rigorous hands-on approach means you get all the info you need to make the right buying decision. And once you've decided which camcorder to buy, **Video Camera's** step-by-step guides and accessory roundups will help you really give it **YOUR BEST SHOT**.



**VIDEO
camera**

THE UK'S NUMBER ONE
CAMCORDER EQUIPMENT GUIDE

Video Camera magazine is distributed by Comag

Dear Newsagent

Please reserve me a copy of **Video Camera**

Name

Address.....

.....

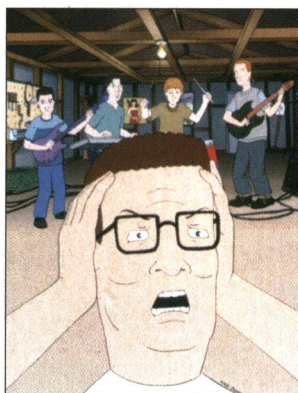
.....

Over the hill

Although slightly in the shadow of *The Simpsons*, *King Of The Hill* (KOTH) is a fine example of animated adult entertainment. More family-based and less surreal than our friends from Springfield, KOTH is nonetheless very funny.

It returns for a third series on Sky One in April, so you can catch up with Hank Hill's average yet strange family as he tries to come to terms with being a father and getting ahead in the propane industry.

Sky One, April



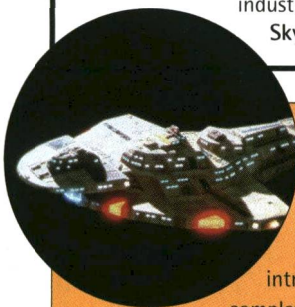
Home comforts

Still trying to find its way home, the crew of the USS Voyager returns for a fifth season on Sky One.

Trekkies the world over were left drooling when the show introduced sexy Borg character 7of9 to the cast last series – complete with figure-hugging catsuits.

The show enjoyed a new lease of life, but the crew still couldn't find a way home and came across a new batch of enemies. This season will offer more of the same, with added surprises promised.

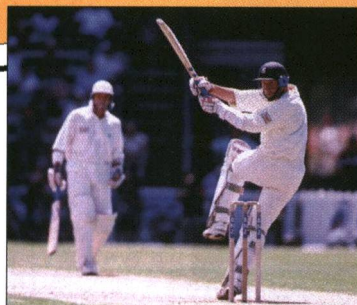
Sky One, April



Taking on the world

Last played in the UK in 1983, cricket's World Cup comes home this summer with 42 top-class matches crammed into five weeks in during May and June. Keep up with the action from May 14 on Sky's sports channels.

The 12 countries – the test-playing nations, plus Kenya, Bangladesh and Scotland – play in two groups of six. The top three in each group progress to a Super Six round. There they will each play the top three teams from the other group, adding to the points already gained. The top four then compete in the semi-finals at Old Trafford and Edgbaston. England had a disappointing Ashes tour in Australia, but they did show flashes of good form during the one-day internationals. Holders Sri Lanka will be out to prove that their success in 1995 was no fluke, while Australia, South Africa and Pakistan are also teams to watch. The final is played on June 20.



TOP WORLD CUP ACTION

England vs Sri Lanka, May 14
England vs Kenya, May 18
England vs South Africa, May 22
England vs Zimbabwe, May 25
England vs India, May 29
West Indies vs Australia, May 30
Australia vs West Indies, May 30
West Indies vs Pakistan, May 16
New Zealand vs Pakistan, May 28
Australia vs New Zealand, May 20

Golfing gold

Can Nick Faldo return to form to clinch more golfing glory this spring? That's one of the questions to be answered over the next few months as some of the year's biggest tournaments are played out at the world's top links.

Among the highlights on Sky and Eurosport are the US Masters from Augusta, Georgia (April 8-11), the Spanish Open from Barcelona (April 22-25), the Italian Open from Turin (April 29-May 2) and the Volvo PGA Championship from Wentworth, Great Britain (May 28-31).



Back to nature

The great Sir David Attenborough revolutionised natural history television and, in order to celebrate his 73rd birthday, UK Horizons will screen a selection of his greatest moments and an in-depth interview with the great man. Who can forget his much-mimicked whisper as he crouches down, in the middle of the jungle, and tries to mingle with a family of gorillas?

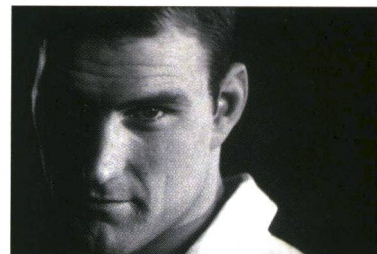
UK Horizons, May



Best of the rest

The Five Nations rugby tournament enters an exciting stage during April, when three top matches will be covered by Sky. They include France vs Scotland and Ireland vs Italy on April 10, then Wales vs England from Wembley on April 11.

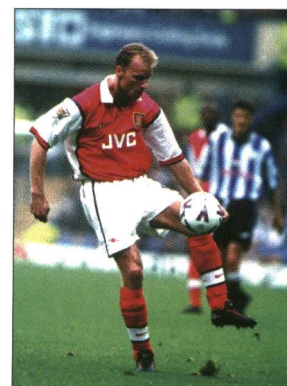
Across the sports and news channels, look for highlights of horse racing's Grand National (April 10), the London Marathon (April 18), the European Squash Championships (April 28), the Badminton Horse Trials (May 6-9), and basketball's Budweiser Championship Finals (May 2).



Up for the cup

Although May is a big month for football on Sky Sports (the climax to the Premiership and Nationwide Leagues can be seen live), it's the FA Cup that's still the highlight of the domestic game.

This year's final on May 22 has extra significance as it's home, Wembley Stadium, will be renovated soon afterwards. Although the famous twin towers will probably remain, the stadium will look very different in future. Last year Arsenal beat Newcastle United to not only win the cup, but also complete the double. Can they do it again?



TOP SOCCER ACTION ON SKY

FA Cup Final, May 22
Division 1 Play-off final, May 31
Division 2 Play-off final, May 30
Division 3 Play-off final, May 29

SIGNALMASTER

WE STOCK THE WINNING PRODUCTS OF '99!

ECHOSTAR AD2000IP

DIGITAL/ANALOGUE/POSITIONER

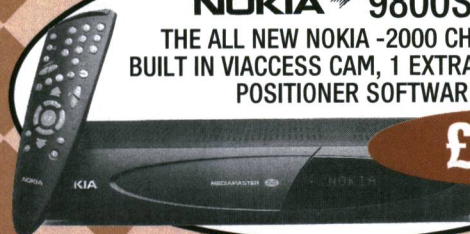
2000 Channels,
50 Sat Positions



Only £469

NOKIA 9800S

THE ALL NEW NOKIA -2000 CHANNELS
BUILT IN VIACCESS CAM, 1 EXTRA CAM SLOT
POSITIONER SOFTWARE



£POA

SIGNAL TOO WEAK FOR TV1000 CINEMA?

Try The New Line Amp

Only £39

Try The New Genesis 3 LNB 0.4db

Only £125

	RECEIVER ONLY	80CM SYSTEM	80CM SYSTEM	DUAL SET	80CM MOTOR	1M MOTOR
BUDGET	89	119	129	149	199	229
PACE PRIMA	95	139	159	189	-	-
PACE MSS100	124	163	179	209	265	285
PACE MSS300	159	199	208	248	299	319
PACE MSS508IP	349	369	379	399	429	439
PACEMSS1000	266	298	316	349	409	419
PACE MSS1008IP	289	329	349	369	389	399
NOKIA 800S	159	189	199	219	265	285
NOKIA 1800 SATSCAN	179	219	229	269	349	369
GRUNDIG 300	159	198	218	238	309	339
AMSTRAD 2000	189	219	229	349	345	385
ECHOSTAR 8700						
MAC + VC + POS	729	769	789	809	899	949
DRAKE 800 MAC/VC	875	910	945	975	1015	1065
DRAKE 2000 MAC/VC	1199	1235	1270	1300	1340	1390

DECODERS

PACE D155	195
PHILIPS 916	125
VIDEOCRYPT 1 DECODER	100
EUROPLUS	149
PHILIPS FILMNET	135

DISHES & LNB's

60 DISH	15
80 DISH	35
90 DISH	49
1M DISH	64
1.2M DISH (Channel Master)	125
1.8M DISH	480
2M DISH + Polar Mount	380
2.5M DISH + Polar Mount	439
3.1M DISH + Polar Mount	509
3.7M DISH + Polar Mount	769
.8DB enhanced lnb	20
.7DB cambridge universal	29
.8DB Calamp Quadband	99
.6DB Astrotel Quadband	149
C-Band LNB 17k	108
C-Band LNB 20k	95
Polariser C&K Band	135
Polariser C-Band	89

MOTORISED EQUIPMENT

JAEGAR 128	108
JAEGAR SILENT GIOD	96
JAEGAR 90U	98
6" ACTUATOR	38
8" ACTUATOR	42
12" ACTUATOR	48
18" ACTUATOR	58
24" ACTUATOR	85
6" POLAR MOUNT	39
12" POLAR MOUNT	42
POSITIONER E/W	38
PACE POSITIONER	114
NOKIA 8152 POSITIONER	114
NOKIA SATSCAN MOUNT	139
OMNIVIEW	179
MULTISAT	129
SAT METER	24
2" GROUND MOUNT	39
3" GROUND MOUNT	59
100M CABLE RG6	22
100 CABLE RIBBON	89
100M 4-CORE	57

www.signalmaster.com

E-mail: sales@signalmaster.com

MANHATTAN ST2000 DIGITAL

1400 Channels
2000 - 45000 Symbol Rate
2 Cam Slots
LNB Loopthrough

Only £329

DIGIQuest P100

400 Channels
2000 - 32000 Symbol Rate
LNB Loopthrough



Only £269

MANHATTAN 7600

80CM DISH
.6 UNIVERSAL
8" ACTUATOR, POLAR MOUNT
CABLE, BOLTS, FITTINGS

Only £299

NOKIA SYSTEM

1800 SATSCAN
80CM DISH
SATSCAN MOUNT
0.7 LNB
CABLE, BOLTS, FITTINGS ETC...

Only £349

1M SYSTEM Only £369

NOKIA 9600S DIGITAL

1 CAM SLOT,
1000 - 45000
SYMBOL RATE

Only £339

NOKIA 9200S DIGITAL

INC. IRDETO CAM
1000 - 45000
SYMBOL RATE

Only £399

DIGIQuest

P1000 F1 Ci

1000 Channels
2000 - 32000 Symbol Rate
LNB Loopthrough
Twin Cam Slots

Only £319

ECHOSTAR 8700 SYSTEM

1.2M SYSTEM
LT8700 MAC/VC/WEGENER
1.2M CHANNEL MASTER
18" JACK & POLAR MOUNT
0.7DB UNIVERSAL
CABLE, BOLTS, FITTINGS ETC...

Only £949

+£300 for 1.8M System

PACE MSS100 SYSTEMS

MSS100 RECEIVER
80CM DISH
6" JACK & POLAR MOUNT
0.7 CAMBRIDGE UNIVERSAL
CABLE, BOLTS & FITTINGS ETC...

Only £265

1M SYSTEM £279

01935 413999

FAX: (01935) 706390
MOBILE: (0966) 414658

Unit 4, 4 Artillery Road, Lufton Trading Estate, Yeovil, Somerset BA22 8RP

SIGNALMASTER

WE STOCK THE WINNING PRODUCTS OF '99!

PHILIPS
916 D2MAC +
MYSTIQUE 260

Only £299

ECHOSTAR

LT 8700MAC/VC With FREE
MYSTIQUE 260 CARD

Only £749

skydigital

Only £199

ANYWHERE

PHILIPS

MAKE THE MOST OF DIGITAL

TOSHIBA

32" PHILIPS WIDESCREEN PROLOGIC **£1,799**

28" PHILIPS WIDESCREEN PROLOGIC **£889**

24" PHILIPS WIDESCREEN NICAM **£679**

TOSHIBA 37" HOME CINEMA **£1,999**

TOSHIBA 32" WIDESCREEN PROLOGIC **£1,599**

TOSHIBA 28" WIDESCREEN PROLOGIC **£1,019**

TOSHIBA 56" DOLBY DIGITAL **£3,699**

MYSTIQUE 260

Holds all known D2MAC Channels - 49 in total. Codes available up to
three days before change on a standard rate Phone line or website.

Decodes most Adult channels including EROS

**THE BEST
D2MAC CARD EVER!**

Only £119

DIAMOND MAC+

The all-new self-upgrading wafer card holds 43 D2Mac channels including:-
TV1000+ 1000 CINEMA CANAL+DENMARK CANAL+ NORWAY CANAL+
SWEDEN CANAL+GULL TV3 DENMARK TV3 SWEDEN TV3 NORWAY DR2
NRK1 NRK2 EUROSPORT +30 MORE!

Only £69

DIGITAL CARDS

TELEPUI	£199
DUTCH MULTICHOICE	£199
AFRICA MULTICHOICE	£199
SHOWTIME	£199
GREEK FILMNET	£199
DFI GERMAN	£199

DIGITAL CARDS

IRDETO CAMS	for 9200S & 9600sS £89
VIACCESS	£89
COMAX	£89

NOKIA 9200S

WITH ANY CARD AND CAM

Only £589

DIGIQuest

P250VA + SCT

Only £479

XXXX CARD - ALL YOU NEED!

ALL ADULT CHANNELS

ON 13 EAST

Only £160

XXXX SCT XXXX

SATISFACTION CHANNEL
onDigital from 9pm - 5am

12 MONTHS Only £199

on skydigital

£199

www.d2maczone.com

£199

Go on line with the most up to date Satellite Web Site

LATEST CARDS, CODES, MAC INFO & MUCH MORE

ORDER YOUR VIEWING CARDS NOW

DIAMOND MAC	£69	SCT DIGITAL	£199
MYSTIQUE 260	£119	ADULT VIEWING CARD	£160

Please rush me my Smartcard now. I enclose a cheque or Postal Order
made payable to SIGNALMASTER, or charge my Mastercard, Visa, Switch

Expires _____ Issue No _____

Card No _____

Name _____

Address _____

Post Code _____ Tel No _____

01935 413999

FAX: (01935) 706390

MOBILE: (0966) 414658

Unit 4, 4 Artillery Road, Lufton Trading Estate, Yeovil, Somerset BA22 8RP

Help!

FRET NO MORE – IF YOU HAVE A PROBLEM WITH YOUR EQUIPMENT WRITE TO BETTER SATELLITE HELP!, WV PUBLICATIONS, 57-59 ROCHESTER PLACE, LONDON NW1 9JU



The yellow peril

Q I read your *All Eyes To The Sky* feature in the winter issue of *Better Satellite*, then bought a Digibox from one of your advertisers, who arranged for a local rigger to erect the dish and install the receiver.

Great! The viewing choice is good, the programmes are fine, but my picture keeps going yellow. The problem, of course, is that the vendor is a couple of hundred miles away from here, and he tells me that the fault may not be in the Digibox itself, especially because

there's no problem when I use 'composite' video. I would rather use the RGB mode set by the installer, however, because it gives a better picture on my big-screen Mitsubishi TV – Richard Ellis, Plymouth, Devon

A *If the problem does lie in the Digibox it's not far away from the Scart output socket. First, ensure that the Scart lead is firmly pushed home at both set-top box and TV set: what's happening is that the blue component of the*

RGB picture feed is intermittently disappearing.

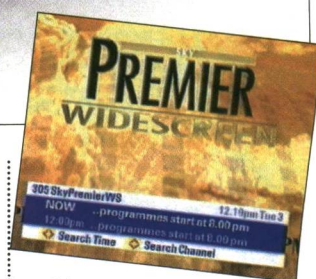
Also try wiggling and tapping the plug at each end while watching the picture – it will show bad joints and loose connections.

Try a new (fully-wired type) Scart lead if necessary, and then, if possible, test the Digibox with another (RGB-compatible) TV set.

Wide-elliptical

Q I've been using an 80cm spun aluminium dish for Astra reception from 19.2°E,

Yellow pictures from Sky Digiboxes could be linked to the Scart output socket



and I want to use it for digital reception by turning it to face 28.2°E, but the dealer says that won't work. He wants to sell me the new perforated elliptical digidish, which looks to me as if it will rust even more quickly than the cheapo perforated dishes supplied with analogue gear!

Can you confirm or deny that my dish will work with digital transmissions? Can you also explain why the new digidishes are wide-elliptical rather than tall-elliptical? – P. Newton, London N

A *There's nothing wrong with your good-quality*

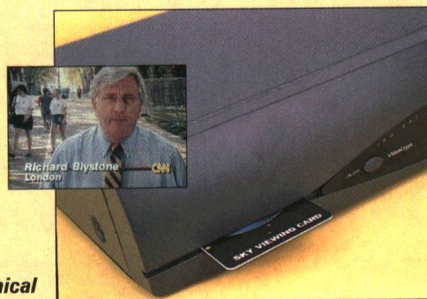
Sparklies and specialists

Q My outfit was installed just before Christmas 1994 and has worked OK until recently. Now the problem is sparklies on CNN, UK Gold and Sky Sports 3. Other channels, like Sky One and National Geographic, only have sparklies on very bright colours, while Channel 5, Granada Breeze and others are fine.

The receiver is a Nokia SAT800, but I know that's OK because a dealer has tested it for me. I believe the dish is OK because a specialist (recommended by the dealer) checked

its alignment and output. What should I do next? – R.M. Leach, Northallerton

A *Why don't these technical specialists, assuming they have both charged you for their services, liaise a bit more with each other? I've no doubt that the alignment of the dish and the gain of its LNB is fine, and that the receiver is working as it should, since these fine experts have checked them all out. Even so, you're no further*



forward with your problem.

The likelihood is that the cable from the dish to the receiver is faulty. This is often the case when the severity of the sparklies increases with frequency as in your case – Granada Breeze and Sky Sports 3 are at opposite ends of the spectrum.

An aluminium solid dish is fine for digital reception



I got dem ol' TV screen blues

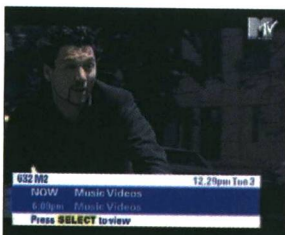
Q I recently gave my son the Pace Prima receiver we have been using in the living room, and extended the cable into his bedroom. When we tried it the TV screen remained blue on satellite operation, so we assumed that there was a problem with the dish cable.

My nephew, who works for a dealer, borrowed another satellite receiver to try, and that worked OK on the same site, exonerating the cable and connections. The dealer does not do repairs and my nephew cannot suggest anything except buying a new receiver. Can you help? – David Raynor, Bridgnorth, Salop



spun aluminium dish for digital reception and I agree that it would be foolhardy to throw it out in favour of the new type of 'cost-effective' perforated dish. You will almost certainly have to replace the LNB, however. The old ones, made before the advent of DTV, have more phase-noise than is good for reliable reception of the new digital broadcasts.

Now that interference from adjacent satellites has become more important than signal-gain in satellite TV reception, the new shape of dish is the best compromise between size and efficiency.



A *There are many fault possibilities for this symptom; some are cheap to fix, some expensive. A strong possibility is that the program-memory Eeprom chip's stored data has become corrupt.*

You can do a factory reset: it may clear this fault. Press the handset keys in the sequence menu - 0 - store > <.

If you are lucky this will restore normal operation, though some/all of the channels may need retuning.

If that doesn't restore normal operation then you'll need to take the receiver to a service shop.

And don't forget to get an estimate before work proceeds.

DTV – where's the picture quality?

Q In all the time that digital TV has been advertised and hyped, we have been promised better picture quality. Now that I've got a DTV set and watched it carefully, I cannot see any real improvement in picture quality. Indeed, it's not easy to tell DTV apart from ordinary reception most of the time, whether the digital pictures come from a satellite or (seen in a shop) a terrestrial broadcast.

Would you agree with that, and, if so, is there any explanation from an unbiased expert like yourself? I've got my own theories, but I won't expound them here – Dr P.L. Wood, High Wycombe, Bucks

A *Yes, it's true that the picture quality of DTV is proving not to be markedly*

better than that of conventional TV once you leave out of the equation faults such as ghosting and weak signals.

DTV picture quality depends on many factors, a lot of which are in the hands of the broadcasters. Not lost on them are these two facts: the lower the broadcast bit-rate the more channels (hence more revenue) you can squeeze in; and most of the British public are happy with VHS-type picture quality. You can make the most of what's available with an RGB hook-up to a suitably equipped TV set.

I want it all

Q Can you tell me how I can get Sky Digital TV without losing my existing channels? At present, I have a dual-feed arrangement which gets me the ordinary Sky channels, plus Hot Bird. I have a decoder and card for some of the Hot Bird services, and I certainly don't want to lose them.

Neither do I want to relinquish the channels I get on my existing (and quite new) Astra receiver: many of them are not available on digital. I'm told that planning regulations do not permit two dishes side by side. Is there any hope for me? – Ed Tullett, Exeter

A *Yes, you have three one-dish choices: a motorised dish, over-the-top perhaps for the 15 or so degrees of arc which covers the satellites you're interested in, a motorised LNB bracket like the Irte Multisat – just about capable of the 15° arc required, or a special 'wide' dish with three LNBs, one for each satellite required, mounted on a bracket in front, a development of what you have now. A specialist dish-rigger can help you.*

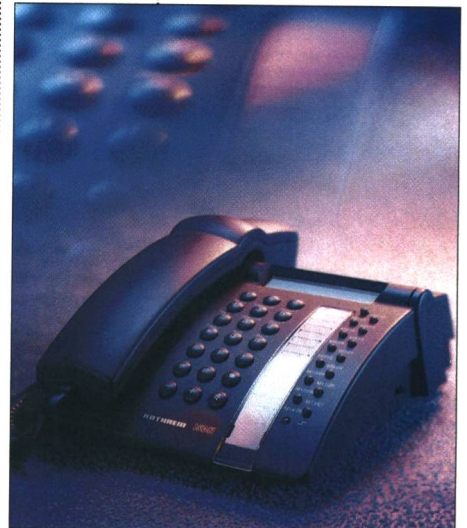
My advice would be to go for the third alternative – it has no moving parts to go wrong, and gives simultaneous multi-satellite reception,

for example for video recording and 'live' viewing.

No phone, no subsidy

Q I want Sky Digital TV, but I don't want to have a connection from the Digibox to the phone. Indeed, I don't have a BT landline connection to my flat at all at present because I depend entirely on a mobile phone.

So what would be the price of an unsubsidised box? Believe it or not, I have asked this question in three different shops so far, and in all of them (including one independent dealer) the staff simply don't



If you don't link your Digibox to a phone line, it costs an extra £170

know and were not interested! – M.J. Wickens, West London

A *Without the subsidy a Sky Digibox will cost you £370 approximately. That's an extra burden of £170 if you're a new subscriber or £210 if you already have analogue reception from Sky.*

In view of this, you may choose to have a phone line installed! If (as is likely) it's already available in the flat, it's an easy and inexpensive job. Then all you need to do to qualify for the subsidy is to sign an agreement and hook up the box for one year. There's no other commitment and (surprisingly) no need for a Sky subscription.



That'll be the Daewoo

Q Help! I would appreciate your input on a problem I've had since installing a new TV (Daewoo model DMQ2997) here. There was no trouble with the previous TV, a Hitachi 21in type, and I'm rather regretting buying this one.

There's patterning on all the ordinary (BBC, ITV, CH4) programmes, and it won't disappear unless I turn my Pace model MSS1000 off at the mains and plug the aerial directly into the VCR (Hitachi VTF150) which is hooked up to the TV. I'm reluctant to blame the satellite receiver because it gave no trouble until the telly was changed.

Can you give me a cure or any suggestions? – Ashley Bloomfield, Via e-mail

A This sort of thing is caused by spurious radiation from within the satellite receiver, but its severity depends on how vulnerable the TV is to interference.

The new Daewoo, it seems, is more vulnerable than the old Hitachi!

The cure – which will work with other makes and models of TV, satellite receiver, VCR and so on – is to remove the UHF loopthrough from the satellite receiver, using Scart cables instead, and replace the co-axial TV-aerial leads (to the VCR and between that and the TV) with double-screened types.

Interference on Channel 5 can be caused by radiation from satellite receivers

The Digibox has plenty of socketry for linking up a surround sound decoder



It rings a bell

Q When I moved in here there was one phone in the hall. Then there got to be three phones, then four and an Internet modem on my PC.

Even before I had a set-top DTV box installed and, of course, connected to the BT line, some of the phones (the ones in bedrooms, for instance) didn't ring, even though they worked OK for incoming and outgoing calls.

Plainly the phone line is overloaded! What options do I have to remedy this? – T.M. Hardy, Cambridge

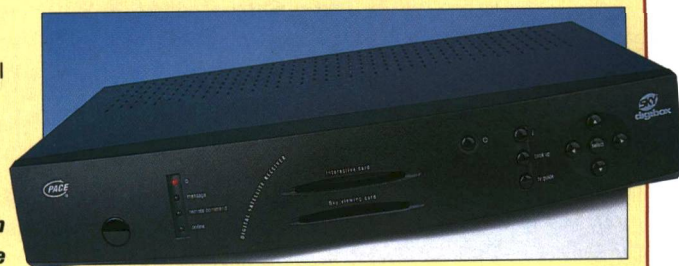
A In fact, the satellite receiver modem, with an REN of about 0.3, burdens the

phone line very little. Even so, you want a remedy. Everything depends on whether your need is purely to have all the phones ring when someone calls, or whether you want to do more than one thing at once with the phone line.

For two simultaneous functions of the line (and two phone numbers, incidentally) you can either have another BT line installed at £116.33 and £27 a quarter; or go for

BT's Home Highway, which gives two analogue and two digital functions at once, but at an even higher cost for installation and rental.

To just increase the 'bell-ringing' capability of the existing line you can buy (eg from CPC, 01772 654455) a REN increaser to boost the line's ringing capacity from 4 to 11. The product code is TE00349 and the price is around £40 inclusive.



DTV hook-up for cinema sound

Q After reading the review of the Pace Sky Digibox in your winter issue, I got one. And I'm generally pleased with it. One thing your review did not cover (and I mean no criticism!) is how to hook-up to a surround sound decoder. Can you describe that for me? I cannot use the Scart sockets because they are already in use for the TV and VCR.

I thought that the Macrovision anti-copying system only kicked in for movies on Box Office channel, but I've found that other film channels give unwatchable tape recordings too – is this normal? – M. Smith, via e-mail

A There's no problem in hooking up to a DPL surround decoder – it can be done via the TV Scart lead or from the audio-out phono sockets on the Digibox's rear panel. Follow the wiring instructions which come with the sound processor. If you have trouble, contact us again, quoting the make and model of the Dolby surround processor. And no, Macrovision copy prevention is not confined to Box Office movies. Indeed, its use seems quite widespread. You buy the viewing, not a recording. As long as you can record Sky News, for instance, all your gear is working OK.

Just for Scarters

Q Because of patterning and interference from

and to Channel 5, my dealer recommended the use of an AV lead between my TV and the satellite receiver (I don't have a VCR). Great – it's cured the interference and cross-lining effect but, in doing so, it's introduced another fault!

What I've got now, only on viewing satellite programmes, is an effect I can only describe as randomly floating coloured blobs on the picture, with a vertical bar of twisted colours floating across the TV screen from side to side. It's mainly noticeable on low-contrast pictures and black-and-white films – R.K. Creed, Hereford

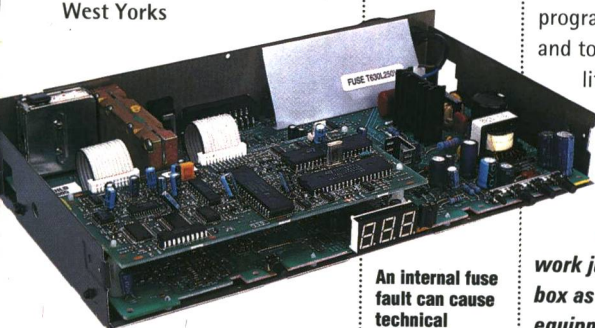
A Yes, this sort of thing is not unknown and – believe it or not – stems from the TV, not the satellite receiver! Prove it by pulling the (terrestrial rooftop) aerial lead out of the back of the TV. You will find that the symptom disappears. To save having to pull out the TV aerial whenever you watch satellite TV programmes, you can either buy a 'professional' Scart lead with individually screened signal conductors, or (cheaper!) snip

the wire at pin 19 of the Scart plug at the TV end, then mark it TV ONLY.

So much angst, BT

Q I've got an old BT receiver, model SVS200 and, in view of what you had to say in the Autumn 1998 issue (*British Telecom Runaround*, page 72) I'm wondering whether it's even worth taking it in for repair! It doesn't work at all, it's completely dead. The letter from Mrs Stevenson in the previous issue gave no indication of the fault symptom which caused so much angst.

Would your advice to me be to throw it away? Thanks for a very readable column in the magazine – it has taught me a lot and given me some laughs – D.J. Wilson, Sowerby Bridge, West Yorks



An internal fuse fault can cause technical problems on the SVS200

A Very often the 'no-go' symptom in this particular model is due to nothing more than the failure of a certain fuse – an internal fuse, not the one in the mains plug. It's probably down to metal-fatigue or old age because there seems to be no underlying cause. Take it to a dealer or service shop and have them check it for a blown fuse. If they find and replace one, great. If other work is necessary (unless it's fairly inexpensive) upgrade to a new receiver. You may see this as a good opportunity to go over to Sky's digital service. Thanks for your kind comments.

Digital distribution – and zapping

Q As long as four years ago you advised me on a

Beam Sky's Beverly Hills 90210 around your home with a distribution system



house-wide TV distribution system in your help column, and then on an infrared extender gadget, both of which have worked well ever since, thank you.

Can you tell me now if they would both work OK with a Digibox? We want to continue to be able to watch Sky TV programmes in the bedroom, and to control both the satellite receiver and the VCR from up there – J. Thomson, Bath

A Yes, the distribution system will work just as well with a Digibox as with your existing equipment, and the same applies to the infrared remote control extender that you have.

In this role the Digibox has a couple of advantages over older equipment, which may or may not be of use to you: its remote control can be programmed to work other equipment, and will do so via your IR extender. And the very wide choice of modulator channels (21-69) makes it easy to find an interference-free slot in the UHF band, even when Channel 5 and VCR-output signals are at large.

Paying £12 for nothing!

Q My Pace satellite box (model SS9200, pictured below) has gone completely dead, with no lights coming up in the front panel, no signal output to the TV set – no signs of life at all, in fact. I have checked the fuse in the mains plug and that's OK.

I took it to a dealer and he wanted £12 just to look at it and give me a quote. I said no, and brought the box away, resolving to write to you rather than give the repairman

£12 for nothing. What's your opinion? – M.R. Maycock, Lewes, East Sussex

A Wow! Do you expect the repair technician to dismantle your equipment, spend time making a diagnosis with skill and specialist test equipment, then give you a quote, all for nothing? Maybe you think that this sort of work is subsidised by the repair jobs which are sanctioned.

In the real world it just doesn't work like that. I cannot give you a diagnosis or quote on this one without examining and testing the box, and I couldn't do that for nothing. You'll have to decide what you want to do. In most cases, the £12 is deducted from the bill if the work goes ahead ■

While every effort is taken to ensure accuracy, we cannot be held responsible for errors. Please note that readers writing to *Help!* cannot be guaranteed a reply



Getting a buzz

Q I've never seen any reference to ITT satellite receivers in your column, nor anything on the symptoms I have, so I'm crossing my fingers. The (rather old) ITT model is a SAT1100 and the faults are twofold: the sound is quite distorted, and there's a buzz coming from within the casing.

The buzz noise has gradually increased and doesn't bother me much as long as it doesn't arise from anything dangerous. The audio distortion comes up in both left and right speakers, and is very

obtrusive. If I cannot get this problem fixed I shall have to buy a new receiver. Can you help? – Terry Saville, Omagh, Northern Ireland

A Your receiver is now quite ancient, and it would perhaps be a good idea to pension it off anyway! Even so, here are some suggestions to remedy the faults you describe.

The buzz usually emanates from the mains transformer in this model, and is not harmful or threatening. The sound distortion is most likely to be down to a certain transistor (TM12) or a 12V

stabiliser device. In either case you'll need professional help, perhaps from a dealer with Salora experience: your set is a clone of Salora model 5902.



Sound problems on an ITT system are tricky to resolve

**COMPUTER VIDEO
ON SALE NOW
PRICED AT JUST
£2.85**

GET GET COMPUTER CREATING VIDEO

Desktop video editing and digital imaging are set to explode. For the latest news, the best reviews and the ultimate buyers' guide there is only one choice *Computer Video*

**THE WORLD'S
BEST GUIDE
TO DIGITAL
VIDEOMAKING
HARDWARE
AND SOFTWARE**



BETTER SATELLITE'S GUIDE TO THE BEST SATELLITE TV INTERNET SITES

Choice cuts

BBC Choice
<http://www.bbc.co.uk/choice/>
Better Satellite verdict: 3/5

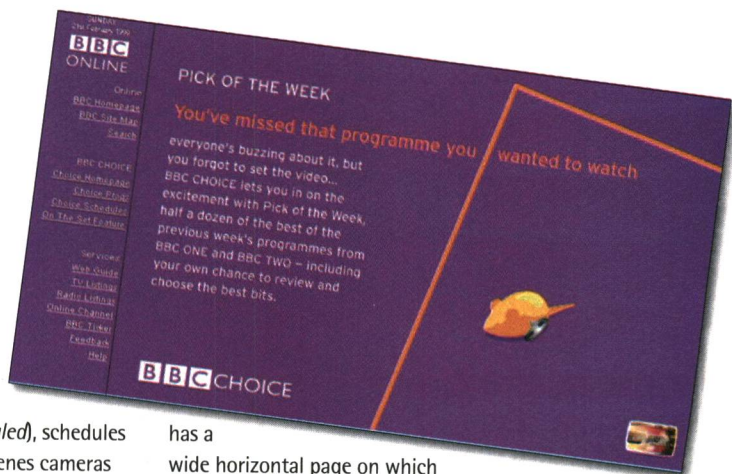
With so many channels crying out for attention in the increasingly crowded digital TV market place, many broadcasters are turning to the Net to tempt potential viewers with snippets of their best programmes and other promotional material. One such station is BBC Choice, which has a well-presented site that uses Shockwave Flash technology to provide animated pages. For those who don't have the required Flash software, normal pages are provided, but they are slower to use.

A graphics-heavy site, its 20 pages give highlights (with brief descriptions on shows such as *The Crew Room* and *EastEnders Revealed*), schedules for the week, behind-the-scenes cameras (which weren't working during our visit), and pages that let you send comments to transmission and scheduling bosses.

Several feature articles, which focus on Choice programmes and people including *Doctor Who* and top TV writer Jimmy McGovern, can be downloaded. A lot of thought has gone into the design of several of the pages; skiing show *The Black Run*

has a wide horizontal page on which the text flows across an image of some snow-topped mountains!

The site's only handicap is its lack of interactivity. Although e-mail addresses are given for each of the shows, a chat room or messageboard where viewers can communicate would be nice. It would also be handy if files, such as sounds or pictures, were available for download. It's worth noting that parts of the site need updating – the transmission controller's page says digital cable will launch 'next year' when he means 1999. But on the whole this is a decent site that will no doubt attract viewers.



European sporting endeavours

Eurosport
<http://www.eurosport-tv.com/>
Better Satellite verdict: 3/5

Eurosport's website has been redesigned into a well-presented set of pages. It's split into seven sections and offers a wide range of information (much is targeted at advertisers, but there is content for viewers too).

Its programme guide is the best we've seen on the Net because it lets you search Eurosport's listings for specific sports coverage. So Sumo wrestling fans, say, need only select the sport from a pull-down menu, click a button and in seconds they will get a list of times and

dates when their favourites will be in action. Listings for 2-3 months ahead are provided and highlights are offered in 10 European languages.

It's a great shame, therefore, that the remainder of the site is so business-oriented. One area provides detailed figures of how many millions of Europeans can watch the service, another tells you how much it costs to advertise, while other pages contain press releases. There's no interaction with viewers, sports news pages or even links to other sites. But it is worth a visit for its TV guide alone.



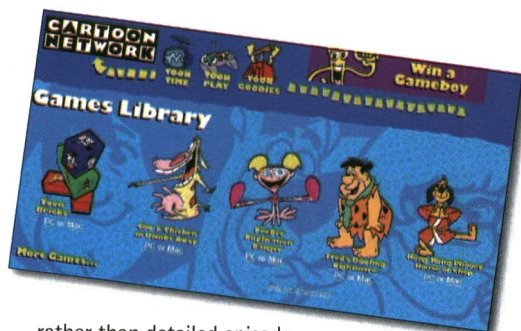
Turn on and toon in!

Cartoon Network
<http://www.cartoon-network.co.uk/>
Better Satellite verdict: 4/5

Although a large proportion of Cartoon Network's audience is actually adult, the channel's website has been designed with youngsters in mind. Big bold images, loud colours and flashing graphics make navigating around it an enjoyable experience.

The main attraction is the Toon Play area. Visitors can download 15 PC and Mac games featuring top cartoon characters like Scooby Doo and Fred Flintstone. Yabba Dabba Doo! Each game takes between 10-15 minutes to download, but it's worth the wait!

The Toon Time pages provide seven-day programme listings for each of the eight European regions where Cartoon Network is available. They are basic listings giving a 'time and title' format



rather than detailed episode breakdowns.

The third section, Toon Goodies, has more free downloads, including a Cartoon Network screensaver, heaps of background images for kids to print out, and almost 20 video excerpts from the *Cow & Chicken* series. A page of advice is provided for those who have download problems. This is a super website that children (and adults!) will adore.

Best of the rest

Digital TV-related sites are springing up all over the Net. Those wanting an overview of the whole scene should visit Microsoft at

<http://www.microsoft.com/dtv/default.asp> and Digital Television at <http://www.digitaltelevision.com>

Both are US-biased, but are good sources of technical data. For more



specific UK info, call Sky's own site at <http://www.sky.co.uk/digital/> and both Grundig's pages at <http://www.grundig.co.uk/> and Pace's at <http://www.pace.co.uk/>, which are less technical.

Irish TV fans should visit Richard Logue's excellent site at <http://welcome.to/irishtv>, which gives a history of TV in the Emerald Isle, including screenshots, links and news.

For a list of Europe's best satellite TV websites, including TV and radio channels, plus UK dealers and satellite operators, turn to *Better Satellite Online* at <http://www.bettersat.com>

Myers Audio

ESTABLISHED
1972

Satellite

NEAR TUBE,
NEXT TO LLOYDS BANK

6-7 Central Parade, Hoe Street
WALTHAMSTOW, LONDON E17 4RT

0181-520 7277

TAX FREE WORLDWIDE

fax no. 0181 503 6677

FOR FAST & EFFICIENT

MAIL ORDER

OR WELCOME TO
OUR SHOWROOM



Join the MOTORISED DIGITAL Revolution

NOKIA

DVB 9600s UK £329
GENUINE UK STOCK ***** GENUINE UK STOCK

DVB 9200S £339

DVB 9200S £399

INCLUDING IRDETO CAM

Digital Motorised Systems

DESCRIPTION	RECEIVERS	80CM	1.1METRE	1.2 METRE
DISH PACK ONLY	FREE KIT WITH SYSTEMS ONLY	£169	£199	£299
NOKIA 9600S		£329	£499	£529
NOKIA 9200S INC. CAM		£399	£569	£599
ECHOSTAR AD 2000P BUILT IN POSITIONER		£499	£629	£679
HUMAX FICI		£289	£479	£519
DIGIQUEST P1000				£639

SYSTEMS INC. REMOTE POSITIONER MOTOR, DISH AE54LNB POLAR MOUNT, INSTALL KIT UP TO 1M

DIGIQUEST

P1/P1000 £289
P100 £215

HUMAX

C1 £215
F1 C1 £289

ECHOSTAR AD2000IP

- 2900 programmable channels, 50 satellite positions, 999 transponders, low threshold, analogue and digital.

£499

DIGITAL MOTORISED

FULL 80 CM SYSTEM **£389**

LNBs

Platinum .06 DB.AE57

£24

CAMBRIDGE AE54 £19

Grundig .7DB £19



£38
Grundig Twinn Unit

.5 DB £59

GENESIS

Ultimate in Reception!

This astounding new LNB greatly improves weak signals enabling picture quality on any size dish in all areas of the country

GENESIS 3 40MM 4db Universal **£125**

GENESIS C120 £135 -4DB Twin Uni £175

FIX DIGITAL/ANALOGUE SYSTEM

ALL SYSTEMS INCLUDE 0.7 UNIVERSAL LNB & 20 M CABLE.F.PLUGS

Description	RX ONLY	60 cm systems	80 cm systems	2xsat systems	1 m systems
Dish Pack only		£49	£59	£109	£99
Nokia 780	£123	£169	£189	£229	£229
Manhattan 7600	£115	£209	£219	£259	£259
Digiquest P100	£239	£289	£299	£349	£339
Nokia 1800 Sat Scan	£185	£249	£259	£295	£299
Grundig GRD or STRD 300	£149	£199	£209	£249	£249
Nokia 9600 UK	£329	£419	£439	£499	£499
Amstrad 2000	£169	£249	£259	£299	£299

HOT BIRD 2X SAT SYSTEMS OR 1° WEST

ALL HOT BIRDS SYSTEMS INCLUDING 2X0.7DB GOLD UNIVERSAL LNB AE54 OR GRUNDIG 80 CM LENSOR & HEATH ALUMINIUM DISH OR CHMAS 6 DEGREE LENSOR & HEATH ADJUSTABLE WIZARD WALL BRACKETS AMALGAMATING TAPE 4 F PLUGS 20 METRE VERY HIGH QUALITY CABLE

GRUNDIG GRD300 OR STRD300 £249

NOKIA 1800P SATSCAN £295

NOKIA DIGITAL 9600 2 x Sat. Sys. £499

AMSTRAD 2000 Cinema Sound £299

D.MAC DECODERS £79
PHILIPS CTU916 WITH ABOVE SYSTEMS PURCHASED.

D.MAC DECODERS

CTU900 CTU916 PRO **VERSION 5**

PHILIPS D2MAC DECODER PRO
Twin card reader
Superb picture quality

£99

WITH FREE WAFER CARD

CTU916 PRO **VERSION 4**

£89

PHILIPS CTU902 D.MAC £99

FREE CARD WITH THIS DECODER

FREE CARD £199

PAGE D155 D2MAC DECODER

CTU900 **VERSION 4**

£89

PHILIPS CTU902 D.MAC £99

PAGE RECEIVER MSS466 OR 916 **£229**

Motorised Upgrades

IRTE → IRTE → IRTE **OMNISAT** MK III **£173**

VERY LATEST WITH POSTCODE

SATRAKER Inc Pos £169

IRTE → IRTE → IRTE

OMNISAT MK III **£173**

VERY LATEST WITH POSTCODE

SATRAKER Inc Pos £169

IRTE → IRTE → IRTE

OMNISAT MK III **£173**

VERY LATEST WITH POSTCODE

SATRAKER Inc Pos £169

IRTE → IRTE → IRTE

OMNISAT MK III **£173**

VERY LATEST WITH POSTCODE

SATRAKER Inc Pos £169

IRTE → IRTE → IRTE

OMNISAT MK III **£173**

VERY LATEST WITH POSTCODE

SATRAKER Inc Pos £169

IRTE → IRTE → IRTE

OMNISAT MK III **£173**

VERY LATEST WITH POSTCODE

SATRAKER Inc Pos £169

IRTE → IRTE → IRTE

OMNISAT MK III **£173**

VERY LATEST WITH POSTCODE

SATRAKER Inc Pos £169

FULLY MOTORISED SYSTEMS

ECHOSTAR



LT 8700
VC, UHF DMAC & Wag
£579 ED

SYSTEMS FULLY MOTORISED

Description	Receivers	80 cm	1 metre	1.2 metre
Dish Pack Only	All systems inc. AE51 Gold Uni. LNB	£159	£179	£269
PAGE MSS508IP	In Stock	£499	£549	£669
PAGE MSS300+MSP200POS		£299	£399	£429
NOKIA 1800IP SATSCAN		£185	£399	£439
LT8700 VC.UHF		£499	£649	£699
LT8700 UHF.WAG.VC.D.MAC		£669	£799	£859

PAGE 300 IP+MSP200 80.CM

FREE KIT PACE MSS300+MSP200 POS. JEAAGER MOTOR ARM 80.CM LENSOR & HEATH DISH C.A.M.B. AE54.7DB GOLD LNB INSTALLATION KIT

£399

1METRE AS ABOVE £429

PAGE 508 IP 80.CM

FREE KIT PACE MSS 508IP RECEIVER JEAAGER MOTOR ARM 1.1METRE HIGH GAIN DISH C.A.M.B. AE54.7DB GOLD LNB INSTALLATION KIT

£499

1METRE AS ABOVE £539

LOOK FREE

INSTALLATION KIT

FIXED SYSTEM

- INC. 20M CABLE
- WALL MOUNT
- 4 BOLTS & F PLUGS
- LOAN METER & ANGLE FINDER SUBJECT TO AVAILABILITY
- INSTALLATION ADVICE

MOTORISED

- INC. 20M RIBBON CABLE
- WALL OR GROUND MOUNT
- 4 BOLTS & F PLUGS
- LOAN METER & ANGLE FINDER SUBJECT TO AVAILABILITY
- INSTALLATION ADVICE

GREGORIAN DISH PACKAGES

FRENCH GREGORIAN 90CM INC. MOTOR & POLAR MOUNT WALL MOUNT **£159**

MOTOR H TO H

SILENT GOLD 99	10 INCH ACTUATOR.....	£37
SILENT GOLD 100	12 INCH ACTUATOR.....	£42
SATRAKER 130°	18 INCH ACTUATOR.....	£49

DISHES

LENSOR & HEATH 60CM	£21
LENSOR & HEATH 80CM Mesh or Solid	£39
LENSOR & HEATH 1.1M	£65
1.1 METER SOLID DISH	£55
1.2 METER CH. MASTER (Face Only)	£99
1.2 METER C & KU BAND (Face Only)	£179
1.8 METER C & KU BAND	£399
3.7 METER C & KU BAND	£749
SWEET 35CM INC LNB	£119
SWEET 55CM INC LNB	£149
MOTORISED COMPLETE 80CM L & H INC LNB & DISH KIT	£159
1.1M L&H INC LNB & DISH KIT	£189
1.1M SOLID DISH INC LNB & DISH KIT	£169
1.2M CH-MESH INC LNB & KIT EX W MOUNT	£269

SWITCHES

A & B SWITCH (Manual)	£14
2 TONE SWITCH 22 KHZ	£14
TOE INSERTER FOR UNI LNB	£14
TOE BLOCKER INSERTER	£19
A & B POWER SWITCH	£19
DIGITAL SWITCH	£19
PRIORITY SWITCH PACK	£15
DISEQC GENERATOR 16P	£15
DISEQC 4 WAYS	£18
DISEQC 2 WAYS	£15
LINE AMPLIFIERS	
2 WAY ACTIVE SPLITTER	£25
LINE AMPLIFIER	£19
LINE AMP EQUALISED	£39

BITS & PIECES

LENSOR 6 HOT BIRD ARM	£9
MULTI LNB HOLDER	£15
MULTI LNB HOLDER UNI	£25
SAT FINDER WITH TONE	£29
SAT FINDER KIT	£39
DIGI METER SAT FINDER	£79
INCLINOMETER	£15
POWER LINK PACK	£39
EXTRA TRANSMITTER	£30
RF POWER LINK	£69
T & K 18" & POLE	£29
UNI POLAR MOUNT	£29
WALL MOUNT UP TO 1.1M DISH	£25
3" WALL MOUNT/GROUND	£49
L & H POLAR MOUNT	£39



BUYERS GUIDE

HELPING YOU TO MAKE THE VERY BEST BUYING CHOICE, BETTER SATELLITE'S EXPERTS HAVE INDIVIDUALLY RATED EVERY SATELLITE RECEIVER FOR THEIR VALUE, FEATURES, PERFORMANCE AND EASE OF USE

QUALITY RATINGS

We've rated each receiver out of 5 for these four categories. The more points, the better the product, with 1 being poor and 5 excellent.

- VALUE FOR MONEY
- FEATURES
- PERFORMANCE
- EASE OF USE

Digiquest P100

£299



With a price tag of just under £300, this free-to-air digital receiver has to be an attractive buy. Although very similar to Humax's HSR550F, it actually

offers far more. Take a look over the front panel, though, and you'd swear we're telling you fibs. The smart fascia still has a four-digit LED display and the quartet of

buttons for limited control of the receiver's basic functions are also there. It's only when you turn the system around that the improvements emerge. There's a standard UHF loopthrough, three phono for audio and video, two Scarts, and a 0/12V switch for triggering an LNB switch. Both the SCSi output and RS232 port are now missing, but that's no great omission. However, the LNB loopthrough (which did not work on the previous model) is now fully functioning – enabling you to link up your analogue receiver.

Operating the receiver is faster than the HSR550F too. A speedier 45MIPS RISC unit has replaced the previous version, enabling it store 1,000 channels or 50 bouquets. At the same time, Humax has revamped the menus to make them more user-friendly. A wide range of LNB types, including C-band units, can be installed. And when using both the DiSEqC switching and 0/12V switch, viewing several satellites is possible. Channels can be found by using either the auto or manual search and although the former

has a skip facility to prevent you downloading dozens of pay-TV channels, in practice it rarely works. While you can now insert PID figures for watching 'soft scrambled' tations, only 10 can be stored. At least the SR range of 2000-32000 lets you watch SCPC channels. Both digital teletext and an EPG facility are also included.

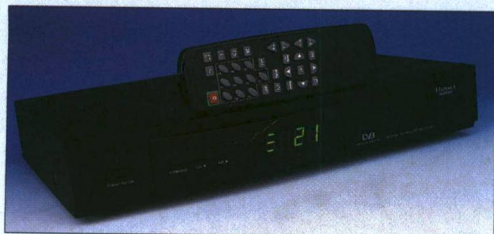
PERFORMANCE

PERFORMANCE:	★★★★
SOUND/PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★



Digiquest P500

£349



Previously called the Humax HSR550F, this is the little brother of several Digiquest systems. Sleek and substantial-looking, it is not your standard budget

system. The front panel has a four-digit LED display, buttons for standby power, channel changing and selecting TV and radio channels. At the back, there's a

LNB loopthrough (which sadly doesn't function correctly and requires a switching device to send signals to your analogue system) plus a UHF loopthrough, a pair of Scarts for TV and VCR, an S-video output, stereo audio outputs and a VCR control socket. For those who want to link it to a computer, there are also SCSi and RS232 interfaces.

After it is powered up, the system's automatic channel search will scan a whole satellite's frequencies in 2-5 minutes before storing them in bouquet order.

Changing the LNB settings is possible from the Setup Menu by selecting 'LNB Power On' and then changing the LNB type (either 'universal' or 'others') and local oscillator frequency settings for low and high bands.

A manual channel search can then be done using the Manual Channel Settings menu to find stations which may have been missed by the automatic search. The channel bouquet's frequency, symbol rate, polarity and FEC also need to be inserted. Sadly, there's no provision for PID inser-

tion, so partly scrambled channels remain unwatchable. The receiver also has a 20-bouquet limit and only accepts symbol rates in the 18000-32000 range, so SCPC channels can't be viewed. Functions available are digital radio, subtitling, teletext, a parental lock and two sound-track preferences, plus an EPG.

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★
EASE OF USE:	★★★
VALUE FOR MONEY:	★★★★



Digiquest P1000

£349



Formerly known as Humax's F1-Ci, this receiver has all the attractive features of the company's two earlier sister models, plus two Common Interface slots

for CAM modules.

Housed in a charcoal casing, the system is a smart looker. A four-digit LED panel runs across the front panel and accommo-

dates a trio of embedded buttons for basic operation.

On the right side of the fascia is a 'drawbridge-style' flap that conceals the two CI slots. The receiver automatically senses which CAM it should be reading and switches between CI slots quickly.

Around the back are two Scart sockets, three phono for audio and video, a UHF loopthrough and a nine-pin RS232 serial port. There's also a 0/12V switch output, a single LNB input and a loopthrough for your analogue

receiver. Eight different LNB configurations can be set, owing to the inclusion of DiSEqC switching.

More than 1,000 channels can be stored – including SCPC channels, thanks to the 2000-32000 symbol rate range – the system's memory has been enlarged from 1Mb to 2Mb. It can only store 10 manually inserted PIDs, but this is not a major drawback – few channels are actually 'soft scrambled'.

Among the other features are rearrangeable channel lists, an

EPG, teletext, plus PIN-operated parental locks for menu and programmes.

Performance from this system is fantastic – with crisp audio and well-coloured pictures. When you consider just how future-proof this system is (due to the two CI slots), it's a very tempting buy.

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★



**Echostar AD-2000IP****£400**

If you want to watch analogue and digital channels but don't fancy splashing out big bucks, then the AD-2000IP could be what you're after. The front panel is basic,

lacking many controls, apart from a simple LED panel, a power switch and channel up/down keys which are hidden beneath a plastic flap. At the rear there are three

Scart sockets (for TV, VCR and analogue decoder, video/S-video), plus stereo audio outputs and a regular UHF loopthrough. Spring connectors handle the wiring to a current-controlled polariser and motorised mount actuator.

There's also a 0/12V switching output for controlling LNB switches and a quartet of F-connectors. One is the straightforward LNB input to the digital tuner section of the receiver, and two others provide signals to the analogue section. The fourth F-connector is

an IF output from the digital input for looping through the LNB signal to the analogue section.

Some 50 satellites can be stored through the menus. As the AD-2000IP is almost like two receivers, the two sections share the user-interface and dish data. The unit is pre-programmed with dozens of satellites and channels and so to set it up you need only select a transponder that you know is active. The analogue section can store 700 channels with a video bandwidth selectable between 18MHz and 27MHz and

with 31 steps of effective threshold extension. Analogue pictures are not quite of the quality on some Echostar machines, but they are sharp. Sound is generally fair.

On the digital side, the system can store 3600 MCPC and SCPC signals with symbol rates of 2000-45000, as well as handling teletext and EPG.

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

**Echostar DSB-9800****£465**

Echostar has a well-earned reputation for producing top-notch analogue multi-satellite systems, but *Better Satellite* is disappointed by the company's

debut digital system. When you turn the system around you'll notice numerous blanked-off sockets. Although the DSB-9800 does have three Scarts, a UHF

loopthrough, a single LNB input, stereo audio outputs and a nine-pin serial port for attaching a PC, there's no LNB loopthrough for linking your analogue receiver (so you'll need a Smart Priority Switch) and there are empty spaces for a modem socket and RS232 port. And although there appear to be two card slots on the front panel, only the lower one is operational. But this system does have one great asset; a slot for an Irdeco Conditional Access Module (CAM). This allows the receiver to unscramble Holland's Canal

Plus package and Germany's DF1 service on Astra and Italy's Tele Plus at 13°E – but you need to buy separate viewing cards for each service.

Setting up is a doddle with the easy menu. A range of LNB types can be set and although there's no DiSEqC function, there's no reason why you can't move your dish with an external positioner to make this part of a multi-satellite setup. It's not ideal, but it is possible. Once it is installed, you'll notice that there is no auto channel search, so channels

must be located manually. Don't expect to watch SCPC channels – the symbol rate range is only 18500-3000. Fortunately, PID figures can be entered for receiving 'soft-scrambled' channels. Other features include two EPGs, digital teletext, and a great performance. Shame about those omissions.

PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

**Eurobox 9700F****£239**

At £239, the Eurobox is one of the cheapest free-to-air digital receivers around. And for that reason alone, it has appeal. But it also has a decent lineup of fea-

tures too.

Housed in a black casing with a large semi-transparent flap on its fascia, it has three buttons for controlling basic functions, an

LED display showing channel number, and a pair of non-operational viewing card slots.

At the back are two Scarts for a TV and VCR, stereo audio outputs, an RS232 serial connection, a 0/12V switching output, a single LNB input and an LNB loopthrough.

Setting up the system is a doddle, thanks to the user-friendly menus. Among the facilities provided are an auto channel search, manual PID entry, a wide symbol rate range of 2000-35000 for SCPC reception. There's also a

parental lock, PAL B/G/I switching and several menu languages.

But there's no teletext, no EPG and no CAM or Common Interface slot. But when you consider the price, these are small omissions from what is a great value machine

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

**Galaxis FTA2****£349**

Aimed at those wanting free-to-air digital channels only, the FTA2 has no CAM and is therefore very different to the Galaxis SAT500IRD. It is very similar to

Strong's SRT4000 – sharing looks and a few software facilities too.

A slim black unit, it has a circle of front panel buttons that allow the system's basic functions to be

controlled without the remote. At the back are fewer connectors than on most digital receivers – an extended IF LNB input, two Scarts, an RS232 output, a UHF loopthrough and a pair of stereo audio outputs.

But the FTA2 does boast a fully working LNB output which allows the system to be linked to an analogue receiver and operated in tandem. As long as the FTA2 is powered up, it controls the LNB (with 13/18V for polarity and 0/22KHz for band switching).

The FTA2 can be programmed

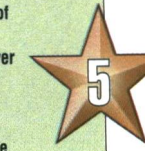
to operate with single-band or universal LNBs and its variable local oscillator settings let you manually set up the system to be used with a range of units. It also has DiSEqC switching, so several LNBs can be controlled from one dish for multi-satellite viewing.

Channels can be found either by the auto search or manually. Unfortunately though, the receiver has no facility for entering PIDs to let you watch elusive digital channels and switching between radio/TV channels is very fiddly. But it

does have a symbol rate range of 2000-36000, making SCPC channels receivable. The receiver also has both EPG support and digital teletext (the latter being reinserted on the signal to your TV so that it is accessed just like the text on BBC1 and Sky News). Sound and picture are well up to digital's high standards.

PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★





Galaxis SAT500IRD

£525



Make no mistake, this is an attractive beast. In addition to the smart three digit LED display, the front panel has buttons for many of the system's basic functions,

allowing you to operate the machine independently of the remote control handset.

The back of the SAT500IRD is also well-equipped. There's a

single LNB input, plus an output for attaching your analogue receiver, although the latter does not work properly. Getting an inexpensive priority switch will solve the problem. Two Scarts are provided, plus separate video and stereo audio outputs, a socket for a modem, a serial connection port for a PC, an expansion socket and also a 12V switching output to enable two LNBs to be connected via an LNB switch.

An Irdeto CAM (for receiving pay-TV packages like DF1 and

Premiere and Tele Plus) is supplied and although the module can be removed from the slot on the rear, the receiver does not boast a Common Interface slot for other CAMs to be inserted.

The system does have an auto channel search, but it cannot receive SCPC channels because of its narrow 18000-32999 symbol rate range. Also, it can store 500 channels only, has a restricting nine-channel bouquet limit and PID figures cannot be entered.

At £525 it's not cheap either. It does, however, boast an EPG, digital teletext and a fabulous audio and visual performance. Still, not one for dedicated enthusiasts.

PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

4

Lemon Volksbox Alpha

£395



This superb multi-format machine is the first to boast Astra Digital Radio stations in addition to digital TV/audio. It also has enough fea-

tures to make it an attractive buy. Its front panel has three buttons for controlling channel changing and standby power, plus a green LED display which indicates

channel number. There's no card slot as the Volksbox is strictly a free-to-air system and can't unscrambled pay channels but external decoders can be added.

Indeed, one of the system's three Scart sockets is designed for you to attach a decoder, while the other two are for linking a TV and VCR. Alongside the extended IF LNB input are two further F-connectors which must be linked together with a small amount of co-ax cable (supplied) for operating the receiver's two digital and analogue satellite tuners. Audio

fans will be delighted to find three pairs of stereo audio outputs and two digital audio outputs (for a Digital Audio Tape Recorder).

The system is pre-programmed with the channels (digital, analogue and ADR) from 32 satellite positions. To watch them, select which satellite you want in the menu, then swing your dish to the correct position using the positioner. Among the digital channels are SCPC stations (thanks to the 2000-30000 symbol rate range) and 'soft-scrambled' ones (as PID figures can be inserted

manually). The one omission in the menu is an EPG. A dab of the Radio button brings up a list of audio channels. The settings of analogue stations can be adjusted through the onscreen menu. Once running, it can store 2000 channels. Audio/video output is superb. A CAM or CI slot and an EPG would make it unbeatable.

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

5

Manhattan ST-1000

£299



This debut digital receiver from Manhattan is a smart affair, boasting a sleek black casing and a fascia with a large LED display and half-a-dozen buttons. To the

rear, the system is well-specified. Alongside two Scart sockets for a TV and VCR are both an RS232 PC connection and a high-speed data port, plus a UHF

loopthrough, phono sockets for video and audio output, plus an S-video output for recording with a VCR that has S-video facilities. Next to the single LNB input (with extended IF tuning between 920-2150MHz), there's an LNB loopthrough to let you hook your analogue receiver to the system.

After you have connected up the system, the process of installing it is straightforward. When the ST-1000 is powered up it requires you to enter your system's LNB settings. Up to 16 LNBs can be controlled by select-

ing the various combinations of switches (DiSEqC or tone) and then adding your local oscillator frequencies.

To search for channels, you select one of the LNBs, choose one of the 30 or so satellite positions, and decide which bouquet of preset channels to download. If you prefer to search for channels manually, this can be done through the menu. Fortunately, the ST-1000 has a wide 2000-45000 symbol rate range so it is able to receive SCPC channels.

The ST-1000 also has a full

Electronic Programme Guide, multiple audio language settings, two types of parental lock and full digital teletext. Pictures are clear, crisp and well-coloured, with plenty of fine detail, while the audio is up to the usual high standards we expect from digital. It's just a shame that it has no CI slot or CAM.

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

4

Manhattan ST-2000CI



Manhattan has returned to the drawing board to update its popular ST-1000 digital receiver and the end result is an exceptionally well-specified system.

No longer restricted to receiving free-to-air channels only, the ST-2000CI has been upgraded with two CI slots where CAMs can be inserted for viewing pay-

TV channels.

Also on the rear panel are TV and VCR scarts, stereo audio outputs, an S-video output, a PAL I/G switch, and a UHF loopthrough. There's also a single LNB input plus an LNB loopthrough and a 0/12V switch output for controlling several LNBs.

The system can control up to 16 LNBs, owing to the inclusion of DiSEqC switching and, once the system's installation settings have been completed, finding channels is simple using the auto channel search.

Features include a memory of 1,400 channels, a wide symbol rate range of 2000-45000, digital teletext and an EPG. The CI slots sense when a certain pay-channel has been selected and then switch between CAMs to unscramble them. This, however, can be quite slow.

Another gripe lies with the design of the buttons on the remote handset. They are far too small and too close together. That said, it's a reasonably future-proofed system that offers great value for money.

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

5

**Nokia Mediamaster DVB9200S****£449**

This was Nokia's first digital receiver to become officially available in the UK. It's a free-to-air receiver without a Conditional Access Module but with a

handsome line-up of features. Around the front there are no visible controls until you pull down the flap to reveal a single unused card slot and power and

channel changing buttons. A snazzy dot matrix display in the centre of the panel welcomes you when the system is first powered up.

On the rear are three Scarts for TV, VCR and your analogue receiver with stereo audio outputs and a VCR control socket. There's also a single wideband LNB input, a 0/12V switching output to trigger an LNB switch, plus an RS232 serial interface for attaching a PC. Unfortunately, the DVB9200S does not support the DiSEqC switching system, nor

can it use a Nokia Satscan single cable motorisation system.

Setting up the system is simple, using the menu. It asks you which European language you want to use, then lets you check the incoming signals from your dish and make LNB alterations (a wide range of units are accommodated). You're then ready to start an automatic channel search. Although the system is not ideal for use with motorised setups, there are a number of switches available which enable it to work perfectly.

You are able to enter PID figures to get 'soft scrambled' channels and it does offer both EPG support and digital teletext. It also has a large symbol rate range of 1000-45000, making it SCPC compatible. This system has largely been superseded by Nokia's DVB9600S.

PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

**Nokia Mediamaster DVB9600S****£450**

Nokia's reincarnation of its DVB9200S retains its good looks and has learned from its past shortcomings. Small wonder then, that the DVB9600S is

regarded as the best digital system money can buy. At a quick glance, little has changed on the front or back panels. The fascia is bare except for an acrylic window

where the green LED panel is. Around the back, there's a single LNB socket, stereo audio outputs, a 0/12V switching output, three Scart sockets and both SCSI and RS232 interfaces. There are no UHF connections so the 9600's pictures can only be seen with a Scart connection.

But fold down the front panel and the system's virtues emerge. Next to the array of buttons for channel changing is a Common Interface slot. This PCMCIA-type slot takes a number of plug-in CAMs to act as an IRD. This

allows the system to decode pay-TV packages like DF1 on Astra and AB-Sat on Hot Bird but you will need a suitable viewing card. So this system is versatile – allowing you, in theory, to receive almost any digital package (though Sky may never issue its CAMs).

Another improvement over the DVB9200S is that this system is DiSEqC compatible, so it operates several LNBs from one dish. Eight different LNBs/satellites/dishes configurations can also be defined. Once set up, the receiver automatically searches

for channels, and new ones can be added manually. PID figures can also be inserted and the wide symbol rate range of 1000-45000 makes SCPC viewing possible. EPG and teletext functions are supplied. A small gripe; there's no LNB loopthrough – so you need a priority switch. Still, it's a great system.

PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

**Philips DSI175B****£430**

Philips has been on the sidelines of the UK satellite industry for a while, but every now and then a system from the Continent makes its way across the Channel. This

is the case with the DSI175B, which is aimed at France but can also be used here as a free-to-air receiver. Most interest in the UK has come from those hoping to

watch the digital version of The Chinese Channel (also called TVBS Europe) on Astra. It's ideal for this because it has a Seca Conditional Access Module (CAM) and Seca is that channel's chosen encryption format. If you can get hold of a suitable viewing card the receiver can also be used to receive other Seca pay-TV services such as France's Canal Satellite Numérique.

It can also be used as a free-to-air receiver, but it is severely limited by its fixed symbol rate of 27500 and lack of a PID insertion

facility. There's also no EPG and no proper teletext. But, on the positive side, the rear panel is well-equipped, with two Scart sockets, a single LNB input, serial and parallel links for attaching a PC, plus a fully-operational LNB loopthrough.

Once you've inserted your LNB's settings into the menu, the DSI175B's automatic channel search scans the skies for channels, storing them as it goes. There's no manual search facility, so you have to trust the system. The AV performance is

hard to fault though – pin-sharp pictures and clear sound are typical.

Overall then, it's a basic setup that's fine for Astra 19°E reception, but little else. If all you want is TVBS Europe it's a great system, but if your viewing intentions are wider then there are better systems to buy.

PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★
EASE OF USE:	★★★
VALUE FOR MONEY:	★★★

**Praxis 9600DVB****£450**

This system is different from many of the other digital receivers here in that is an integrated analogue/digital receiver able to receive the likes

of Sky News as well digital stations such as Travel. The idea is great, but in practice it doesn't really work.

It's certainly a smart-looking

system though, with a charcoal livery and a minimalist front panel boasting four buttons, with a very impressive line-up of socketry around the back.

Next to the UHF loopthrough are six phono; four for stereo audio and two for video. There's also an S-Video output and an RS232 serial port. But it is the four spring-clip terminals at the centre of the panel which are of most interest.

These allow the receiver to control a mechanical polariser or co-rotor for C-band reception.

Impressive. But the system cannot control magnetic polarisers. What's more, you have to buy an external positioner to make full use of these facilities – it would be far better if an integrated positioner was provided.

Also on the rear are three LNB inputs – two for analogue and one for digital so you need a dual-input on your dish. It would be far simpler if there were one LNB input feeding both formats to avoid the use of a priority switch. Although the digital output is

excellent, the analogue output is average with sharp pictures and average sound. The digital features include teletext and SCPC channels (thanks to the 2000-450000 SR range) but no EPG. There are 2,870 digital channels and 400 analogue.

PERFORMANCE

SOUND/PICTURE:	★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★



Praxis Digimaster 9800DVB

£559



The upgraded version of the 9600DVB costs more than many other digital receivers, but also offers more features than most. For a start, there's a built-in posi-

tioner that can store 50 satellite positions, plus 700 analogue channels and 2,900 digital stations.

This model is a slimmer

machine than the 9600DVB. Behind its flap are seven well-spaced buttons, along with an LED panel showing the channel number.

To the rear are three Scarts for TV, VCR and an external decoder, a pair of LNB inputs (and two outputs for linking the analogue/digital sections), a 0/12V output for controlling an LNB switch, six spring-clip terminals, an RS232 serial port, plus outputs for S-video and three audio connections.

Setting up the system is long-

winded, owing to the number of features on the system. You need to insert installation details for the analogue and digital features separately.

Among the features are manual PID entry, a symbol rate range of 2000-45000, teletext, an EPG, and a parental lock. Among the analogue features are C-band video inverting, a full range of analogue decoder settings, and 32-step low threshold extension. Analogue and digital performance are generally very good. All that's missing are analogue

decoders and a digital CAM or CI slot – this means the system is restricted to free-to-air reception.



PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

ProDX 3300A

£329



Of the half-dozen dual-format analogue/digital systems available, the ProDX 3300A is certainly one to consider. At £329, it's the cheapest such system on the

market. But it does have similarities with the Praxis Digimaster 9600DVB. Five buttons arranged in an oval cluster allow basic operation of channel changing

and volume settings, while two others let you control standby power and the menu. At the centre of the fascia is a four-digit LED panel showing channel numbers.

At the back are three F-connectors; two for the analogue section and one for the digital. As with the Praxis, you still require a smart priority switch for the analogue and digital signals to be properly handled. The rear panel also has a pair of Scart sockets for a TV/VCR and external decoder, six phono sockets for audio and video, an S-Video out-

put, an RS232 data port (for uploading software upgrades via a PC) and a 0/12V socket for operating a switching device.

Given the multi-satellite functions, it's disappointing that no built-in positioner is provided. You need to have an external positioner to control your motorised dish – and a pair of spring-clip terminals that drive a magnetic polariser are provided for this purpose. Once powered up, the receiver begins to search for channels. The ProDX has a pre-programmed database of 999

transponders across 50 satellites. PID figures can be entered to watch 'soft-scrambled' channels and SCPC channels can be received due to the 2000-45000 symbol rate range. The analogue side of the ProDX can store 400 channels – and a 32-step low threshold tuner is provided for pulling in weak signals.



PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

RSD ODM300

£399



RSD has long been associated with excellent D2-Mac products and has now extended that reputation into the digital arena with the ODM300, a superb free-

to-air enthusiasts system.

Housed in a smart black casing, the receiver has an LED panel with channel number at the centre of its front panel along

with a trio of buttons for basic control.

Around the back is a single LNB input (with extended IF tuning) plus two Scart sockets, the usual UHF link, stereo audio outputs, a UHF test signal switch and an RS232 serial port for attaching a PC. There's no LNB loopthrough so, as with many of the other systems here, you'll need a priority switch.

Setting up the system is a doddle using the onscreen menu. Enter your LNB details either manually or select one of the 32

pre-determined settings. C-Band units are catered for and because the system has DiSEqC it can control several LNBs from one dish.

Channels can be located either by the auto search or through the manual version. SCPC channels will be found, owing to the 2000-45000 SR range and because the ODM300 has a useful PID menu, viewing 'soft scrambled' channels is possible.

There's no EPG facility (because pay-TV channels cannot be received because of the lack

of a CAM) but there is teletext and the output is top-notch. Make no mistake, this is an excellent system – and all for under £300.



PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

SCT Monterey Digital

£2,500



It's pricey, but SCT's Monterey Classic multi-satellite receiver does seem to have it all. It has an integrated positioner able to receive dozens of satellite posi-

tions (including 2,000 digital channels and 5,000 analogue stations) plus a Videocrypt decoder, a Mac decoder and four card slots! A digital board from Scot-

tish firm RSD has been added, so you can see free-to-air channels from across the satellite arc. The decoder is slung neatly underneath the box.

As digital receivers require access to raw IF signals from the LNB and cannot simply tap into a decoder loop, SCT's digital upgrade is electronically separated from the analogue Classic. It comes with an IF splitter to feed LNB signals to both analogue and digital sections. It would have been better if this had been built into the digital extension.

Demonstrating the separate nature of the digital section, it even has its own power supply. However, a phone-like data lead connects the analogue section to the digital one so that the two can share info. Both the digital and analogue features are controlled from the one remote handset. There's a wide symbol rate range of 2000-46000, PID figures can be manually inserted, and it has digital teletext. No full EPG, but some prog info can be accessed.

Tuning the digital channels is complex because a number of

settings must be manually entered before the system begins an auto search. There's no proper C-band reception (there's just one LNB input on the digital extension), and a lack of communication between the Classic and the digital board re satellite positions. But output, in analogue, digital and Mac, is hard to fault.



PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

**Strong SRT4000****£360**

A neat system with an upmarket appearance, the SRT4000 is not let down by the omission of a flashy LED display on its front panel. Instead, the space is occupied by eight buttons

controlling just about every function of the receiver.

Around the back is a single extended IF LNB input, together with an output for linking an analogue receiver, although this

does not function correctly so a priority switch is necessary. There are also two Scart sockets, stereo audio outputs, an RS232 data port for connection to a PC (important because future software upgrades will be available from distributor Sat-Elite's website).

Through the user-friendly, good-looking menu, a wide range of universal and C-band LNBs can be set up. The ODM300 can recognise inverted C-band signals and process them properly.

Either a manual or auto

channel search can then be carried out and SCPC channels found in the wide 3000-32000 SR range. Unfortunately though, PID figures cannot be entered and other disappointing omissions include digital teletext and EPG support – standard features on most other systems.

But the system's performance will not disappoint. Pictures are sharp and well-coloured and the audio is crisp and sonorous. Overall, this is a good system that is sadly let down by the absence of several features.

PERFORMANCE

SOUND/PICTURE:	★★★★
FEATURES:	★★
EASE OF USE:	★★★
VALUE FOR MONEY:	★★★

**Visiosat Xena 1500****£389**

With a powerful name like Xena, this system might be expected to be as features-laden as its TV namesake – but it ultimately disappoints.

From a quick look, it certainly appears impressive. The front panel boasts a smart green LED display, three buttons for basic control and two card slots behind

the flap.

This because the system boasts an integrated Viaccess CAM for watching French and Swiss pay-TV packages. If you want to watch them, the Xena 1500 is great.

But if you are getting a digital receiver to watch free-to-air channels, this one is not recommended. Its narrow 20000-45000 symbol rate range means that reception of SCPC channels is not possible. And users cannot manually enter PID figures for watching soft-scrambled channels. Fur-

thermore, the system does not have teletext or even EPG support.

It's a shame because the Xena has a superbly designed menu that makes it easy to setup and install (even though the remote handset has a number of confusing non-functioning buttons).

It also boasts several 'exclusive' features such as a picture freeze facility (great for noting down telephone numbers during advert breaks) and a 60-minute timer.

Performance is also generally

good. The picture and audio output isn't the best we've seen or heard from a digital receiver, but is still above par. During *Better Satellite*'s tests it was also found that the Viaccess CAM, when used with a suitable viewing card, was quick to unscramble channels.

PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★
EASE OF USE:	★★★★★
VALUE FOR MONEY:	★★★

**Xcom CDTV200****£395**

The CDTV200 from French firm Xcom has much appeal. It has a Viaccess conditional access module (CAM) so it can decrypt the pay-TV packages Arabesque,

TPS and AB-Sat at 13°E when a suitable viewing card is bought. And although the receiver has no flashy LED front panel display or even an EPG and teletext, these

are small omissions for those who plan to use it only to watch the free-to-air channels available.

All necessary socketry is included on the rear panel – a single extended IF LNB input (tuneable between 950-2150MHz), a pair of Scarts for TV and VCR, stereo audio outputs, a DIN connector for S-video and a round-jack serial port for connecting a computer. There's also an LNB output which allows the CDTV200 to be linked to an analogue receiver, but this does not work correctly and a switching

device such as Global's Smart Priority Switch is necessary. Once the system is in place, using it is a breeze, owing to its user-friendly menu. But it has no auto channel search, so you'll need to program in every bouquet manually, one at a time.

To store the bouquet settings, the details of its name, frequency, symbol rate, polarity and FEC are all required. You can also enter PIDs into the main menu to watch 'soft-scrambled' channels, but these need to be in decimal format. This is a long process.

Insertion of your LNB details is carried out in the Receiver Installation menu and then checked by pressing the 'Info' button on the handset.

Sadly, the receiver has a narrow symbol rate range of 15000-30000, which means it is incompatible with most SCPC (single channel per carrier) stations.

PERFORMANCE

SOUND:	★★★★★
PICTURE:	★★★★★
FEATURES:	★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★★

**Xcom CDTV350****£450**

And now for something completely different. The CDTV350 is able to receive both analogue and digital channels and although it's been made with

the French market in mind, it works fine on this side of the Channel too.

Boasting a Viaccess CAM for receiving the pay-TV packages

TPS, AB-Sat and Canal Satellite, it has a single card slot on its front panel for suitable cards. There is also a trio of buttons for basic control.

Around the back are two Scart sockets, stereo audio outputs, the usual UHF lothrough, a non-functioning LNB output (so you'll need a priority switch) and an S-Video socket. A nine-pin round serial jack is also supplied in place of an RS232 interface for linking up a PC.

The system has DiSEqC 1.1 for controlling several LNBs from

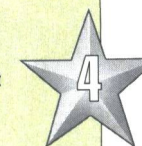
one dish. Although the system comes preset for universal LNBs it can operate with others too. Sadly, there's no auto channel search so you have to locate channels using the more time-consuming manual version. PIDs for audio and video can be entered, but there is a narrow SR range of 15000-30000 so SCPC channels cannot be stored. Digital features include EPG support and teletext.

Analogue performance is hard to fault – sharp images and clear sound are the order of the day.

And when you consider that the receiver stores a total of 900 analogue and digital channels, it's a great buy at only £450. But you will need to add an external Videocrypt decoder if you want Sky's channels.

PERFORMANCE

SOUND/PICTURE:	★★★★★
FEATURES:	★★★★★
EASE OF USE:	★★★★★
VALUE FOR MONEY:	★★★★★





Amstrad DRX100



Amstrad's Digibox is, in our opinion, the smartest of the first four systems. Housed in a charcoal-coloured casing, it boasts a silver livery on its front panel, where

the buttons and remote control eye are located.

Like the other Digiboxes, the DRX100 has two card slots; the lower one is for a Sky Digital

viewing card and the upper one is for a Mondex-type payment card (which is not expected to be used for a while yet).

Around the back there's a single LNB input (with extended IF tuning between 920-2150MHz), two Scart sockets for a TV and VCR, an RS232 serial interface for linking up your PC, a pair of stereo audio outputs and a UHF loopthrough.

At the centre of the panel is a metal plate that covers an empty slot where, in the future, a Conditional Access Module could be fit-

ted for unscrambling other digital TV services. There are also two UHF outputs on the left half for feeding signals to both your main TV set and a second set in another room, say a bedroom.

The DRX100, like the other Digiboxes, comes with a manual that explains the setup and installation procedure – although most of this should have been completed by the installer when the system was first introduced to your home. It is an excellent system but, like the other Digiboxes, it does suffer from slow menus

and long waits for TV listings material.

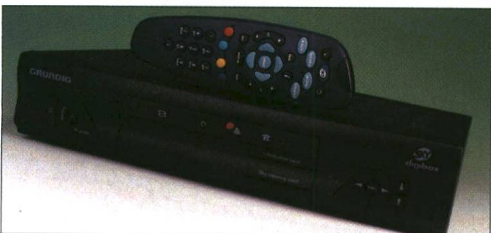
And, at the time of writing, there was still no DiSEqC switching, TV planner or favourite channels facility. These can, however, be added to the box via over the air upgrades by Sky at any time.



PERFORMANCE

SOUND:	★★★
PICTURE:	★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

Grundig GDS200



The black casing of Grundig's Digibox makes it seem rather drab at first glance, but take a closer look and you'll notice why this system has appeal. It boasts

'aerodynamic' rounded edges and clusters of teardrop-shaped buttons. Plenty of thought has obviously gone into its design. It's also worth noting that

despite Grundig's name on the GDS200, the system was not actually 100 per cent made by company. In fact Hyundai, a Japanese firm, also helped in its development – although you won't notice this when you use it.

This is because it is functionally and technically identical to the other Digiboxes on the market. The rear panel has a different layout of socketry to the other systems – the RS232 port is at a right angle and the telephone socket is on the right half of the panel – but all the vital connec-

tors are there. These include two Scart sockets, stereo audio outputs, the UHF loopthrough, and the single LNB input.

Like the other Digiboxes, the GDS200 also has a 28.8Kbit/s modem for ordering PPV events and communicating with Sky and Open. Indeed, the receiver has to be attached to your BT phone socket or you'll forgo the BT-backed subsidy and will pay £170 more for your system. Although the receiver does call Sky during the wee hours (via a freephone number) there's no need to worry

about this process waking you up. It bypasses the ring system.

In all, the GDS200 is a well-equipped system for receiving Sky's channels and more. But it does have the same pitfalls as the other Digiboxes here – long waits for the listings info, slow menus and no DiSEqC, TV planner or fave channels facilities.



PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

Pace BSKYB2200



Pace's Digibox is a neat box that, despite being plastic, has a well-rounded design. The two card slots are located to the centre of the fascia, with the buttons to the

right and the indicators on the left. At the back, the two Scart sockets are in the centre of the panel, while the power socket, empty CI slot and RS232 port is on the left

half, and the LNB input, phone socket and video/audio outputs appear on the right. This is a well-spread layout.

The system itself is technically identical to the other first-generation Sky Digiboxes. It can provide up to 500 TV and radio channels, but also interactive home shopping, e-mail and the SkyGuide EPG. It's through this menu that you can make adjustments to the picture and audio settings, and manually tune in channels that are not included in the Sky Guide, such as Chinese News And Enter-

tainment. Press the Services button on your remote, select System Setup, then choose Add Channels and enter the frequency (in this case 11.758GHz), polarity (Horizontal), symbol rate (27500) and FEC (2/3). Select Find Channels and after a few seconds the Digibox provides you with the names of channels on that frequency which can then be stored.

You can also make Box Office purchases through the onscreen TV Guide. Select one of the hundreds of screenings of films or other events each day, enter your

PIN number, then switch to the relevant channel at the correct time. There is a parental lock.

It scores well, but doesn't quite earn full marks for features, owing to the omission of some features that can be added at a later date – DiSEqC switching, a TV Planner, and a favourite channels facility.



PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

Panasonic TU-DSB20



Panasonic's Digibox is a compact system, but one that lacks the carefully crafted looks of its rivals. Its black casing gives it a rather bland appearance.

But while it doesn't score highly on looks, the TU-DSB20 does have one small advantage over its rivals. It is the only Digibox to boast sunken card slots on its

fascia. These help to protect your viewing cards from the meddling fingers of young children.

Otherwise, this system is essentially the same as the other Digiboxes from Amstrad, Grundig and Pace. It has a single LNB input (with extended IF tuning between 920-2150MHz), two Scart sockets for a TV and VCR, an RS232 serial interface for linking up your PC (to play interactive games and use e-mail in the future), a pair of stereo audio outputs and a UHF loopthrough – although the layout of these is

different. At the centre of the panel is a metal plate that covers an empty slot where, in the future, a Conditional Access Module could be fitted for unscrambling other digital TV services. There are also two UHF outputs on the left half for feeding signals to both your main TV set and a second set in another room, say a bedroom. Installation is simple, providing you have a universal LNB and a dish of 45cm or greater size pointed at Astra 2A. The box does everything else – including finding the channels,

downloading TV listings and becoming fully operational.

Once installed, you can use the EPG to move between the TV and audio channels on offer by three methods – skipping through the line-up using the cursor buttons on the remote; keying in the channel number; or choosing a required channel in the SkyGuide.



PERFORMANCE

SOUND:	★★★★
PICTURE:	★★★★
FEATURES:	★★★★
EASE OF USE:	★★★★
VALUE FOR MONEY:	★★★★

**SKY DIGIBOX****Cost: £159-£370**

- ☐ What it is: Lets you watch Sky's digital TV and audio channels plus interactive services from the Astra 2A satellite at 28.2°E
- ☐ How many channels it can get: About 170 from Sky, the BBC, Flextech and other UK broadcasters
- ☐ What you need with it: A 45cm dish or, if you live in south-west Ireland or northern Scotland a 60cm dish. Cost is included in the price above
- ☐ Cost to install: Nothing if you take up Sky's free installation offer and agree to have your phone line connected to the receiver
- ☐ Bad points: You're restricted to watching channels from the Astra 2A satellite and have to pay to watch many stations
- ☐ Good points: Simple to operate and no technical knowledge is needed

**ASTRA ANALOGUE RECEIVER****Cost: £30-£250**

- ☐ What it is: Lets you watch analogue TV and audio channels from the Astra 1 satellites at 19.2°E
- ☐ How many channels it can get: About 100 channels, including 40 from Sky and German-language broadcasters
- ☐ What you need with it: 60cm dish or, if you live in Scotland or Northern Ireland, an 80cm dish. Costs around £60-£80 with LNB unit
- ☐ Cost to install: About £50
- ☐ Bad points: Analogue TV is being replaced by digital TV, so receivers will have life-span of 5-10 years
- ☐ Good points: Cheapest route into satellite. Easy to use.

**FREE-TO-AIR DIGITAL RECEIVER****Cost: £240-£500**

- ☐ What it is: Lets you watch unscrambled digital TV and radio channels from across Europe
- ☐ How many channels it can get: About 70 from Astra 1 at 19.2°E, or 1,000 if used with a moveable dish
- ☐ What you need with it: 60cm dish or, if you live in Scotland or Northern Ireland, an 80cm dish. Costs around £60-£80 with Universal LNB
- ☐ Cost to install: About £50
- ☐ Bad points: Cannot receive Sky Digital or other pay-TV packages because it contains no decoding unit (called a Conditional Access Module)
- ☐ Good points: When it is used with a dual-feed or multi-satellite receiver you can watch hundreds of extra channels in digital quality



Step into

GETTING A SATELLITE TV SYSTEM FOR THE FIRST TIME? LOOKING TO UPGRADE THE EQUIPMENT YOU ALREADY HAVE? BETTER SATELLITE EXPLAINS THE OPTIONS OPEN TO YOU

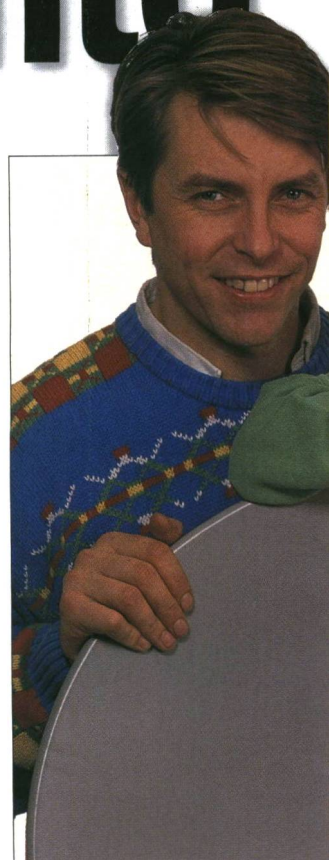
With so much talk around about the launch of Sky's digital TV service, you might think the only way to watch satellite TV is to buy a Sky Digibox. Not so. As these two pages illustrate, there are several ways to watch.

The cheapest and simplest option is to buy an analogue Astra receiver. They cost as little as £100 fully fitted and, once installed, they give you access to 45 free channels such as Sky News, Cartoon Network, TNT Classic Movies and Eurosport.

If you don't mind paying a subscription fee each month (see the back of this issue for prices) you'll also be able to watch Sky's 40 or so basic and premium channels. Even though analogue satellite broadcasts are due to end in 5-10 years time, you'll have had plenty of enjoyment out of your system by then.

Spend a few bucks more and you can get a multi-satellite system. These come with a moveable dish that can point at numerous satellite positions in the skies to let you watch analogue and digital channels from across Europe. They're ideal for expats wanting to watch telly from back home, those learning a second language, and those who fancy watching live news feeds before they're edited for news bulletins.

If you're dead set on getting a digital receiver, don't restrict yourself to Sky. It's often forgotten that there are hundreds of other digital channels besides Sky's beaming



Whether you're a sports fan or a film lover, there are several ways to get the satellite channels best suited to you

MULTI-SATELLITE RECEIVER**Cost: £200-£3,500**

- ☐ What it is: Because it comes with a moveable dish that points at lots of satellites you can receive just about any analogue satellite channel and raw news feeds
- ☐ How many channels it can get: About 1,000 from broadcasters across Europe and the world
 - ☐ What you need with it: A large dish with LNB. Typical prices are 1m (£90), 1.2m (£160) or 1.8m (£350). Also requires a positioner to move the dish if it's not built into the receiver (costs from £80)
 - ☐ Cost to install: £100-£200
 - ☐ Bad points: Costly and requires a large dish to be installed on side of your house
- ☐ Good points: The ultimate satellite system. Lets you watch free channels from around the world, plus the UK channels. You can add free-to-air digital receivers to get free digital channels





satellite



down from the satellites above Europe. Watching them is neither expensive (some digital channels are free-to-air and don't require a subscription payment) or tricky (all you need to do is add a free-to-air receiver to your existing analogue receiver). If you buy a digital receiver fitted with a scrambling unit (called a Conditional Access Module) you'll be able to watch pay-TV packages from other countries too, providing that you also have a valid viewing card.

Satellite TV has something to offer everyone. Whether it's live football, steamy adult material, factual shows, Hollywood smash hits or hilarious comedy, there's always something on. Here are eight ways to join the exciting world of satellite ■

D2-MAC DECODER

Cost: £100 upwards

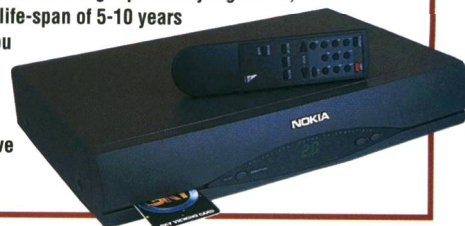
- ❑ What it is: A device that lets you watch hardcore porn channels, plus TV and radio stations from Scandinavia (showing general entertainment and yet more porn)
- ❑ How many channels it can get: About 30-40
- ❑ What you need with it: 1m dish pointed at 1°W (£90), a Mac viewing card (£10) and an analogue receiver (£30)
- ❑ Cost to install: Nothing. You plug it into the back of your analogue receiver
- ❑ Bad points: Mac decoders could be banned in the UK in the future under new EU legislation
- ❑ Good points: Watch X-rated erotic material that you won't find on any UK channels or videos



DUAL-FEED ANALOGUE RECEIVER

Cost: £140-£250

- ❑ What it is: Lets you watch analogue TV and audio channels from two satellite positions, say Astra 1 at 19.2°E and Eutelsat Hot Bird at 13°E
- ❑ How many channels it can get: About 200, including 40 from Sky and many from broadcasters across Europe
- ❑ What you need with it: 60cm dish or, if you live in Scotland or Northern Ireland, an 80cm dish. Costs about £90-£110 with two LNB units
- ❑ Cost to install: About £50
- ❑ Bad points: Analogue TV is being replaced by digital TV, so receivers will have life-span of 5-10 years
- ❑ Good points: Lets you eavesdrop on free channels from other European countries while continuing to have access to Sky



DUAL FORMAT ANALOGUE/DIGITAL RECEIVER

Cost: £350-£2,500

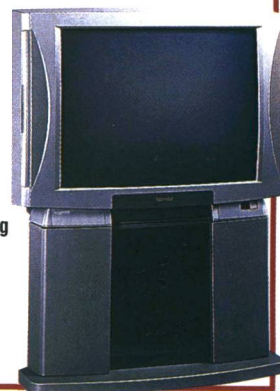
- ❑ What it is: Lets you watch analogue and digital channels without the hassle of buying two separate receivers
- ❑ How many channels it can get: About 400 from Astra or 2,000 if used with a moveable dish
- ❑ What you need with it: 60cm dish or, if you live in Scotland or Northern Ireland, an 80cm dish. Costs around £60-£80 with Universal LNB
- ❑ Cost to install: About £50
- ❑ Bad points: Cannot receive Sky Digital or Sky's analogue channels because it contains no decoding unit (called a Conditional Access Module) unless you buy a high-end priced system
- ❑ Good points: Get the best of both worlds by watching free analogue and digital channels from across Europe



INTEGRATED DIGITAL SATELLITE TV

Cost: £1,000-£3,000

- ❑ What it is: Widescreen TV set that has an in-built receiver that lets you watch Sky Digital and, possibly, digital terrestrial TV in the future too
- ❑ How many channels it can get: About 170 from Sky, the BBC, Flextech and other UK broadcasters
- ❑ What you need with it: A 45cm dish or, if you live in south-west Ireland or northern Scotland a 60cm dish. Cost is included in the price above
- ❑ Cost to install: Nothing if you take up Sky's free installation offer and agree to have your phone line connected to the receiver
- ❑ Bad points: You're restricted to watching channels from the Astra 2A satellite position and have to pay to watch many stations
- ❑ Good points: Simple to operate and no technical knowledge is needed





Your satellite kit's

So you're curious about how satellite TV and your receiver actually work? Here we provide a user-friendly guide to what is involved.

The satellite television signals beamed down to earth are not very strong, therefore a dish rather than a conventional TV aerial is vital to receive the signals properly.

If you live on the edge of the area covered by the satellite's signal – known as

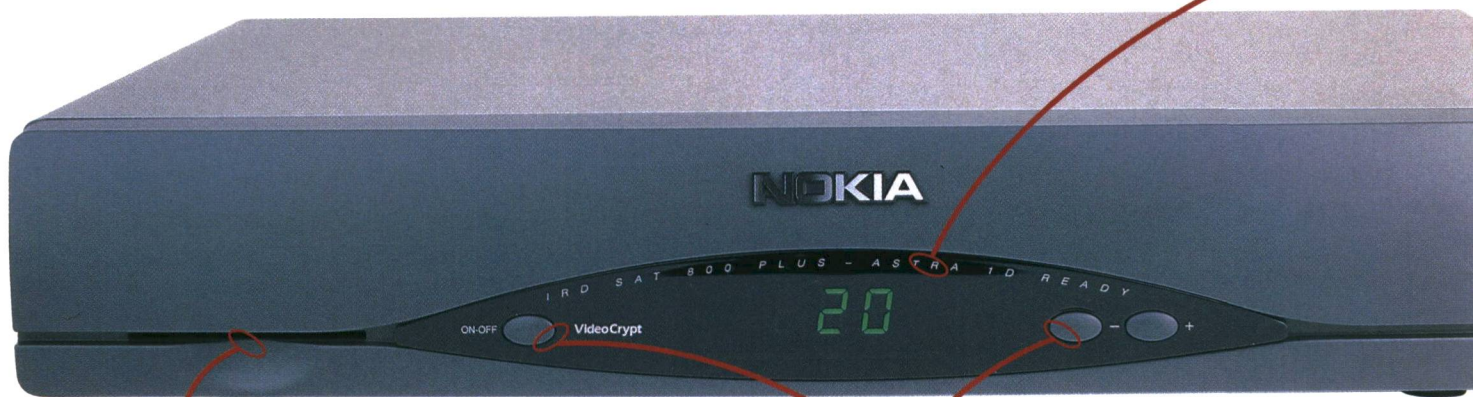
the footprint – you'll need a larger dish than if you were to live at the centre of the beam. The larger your dish, the stronger the signal will be, and the better the quality of pictures and sound received.

When it is pointed at a satellite, the dish collects the weak signals and concentrates them on its focus point where the LNB is positioned. The LNB converts the signal to an intermediate frequency

(IF) for transmission down the cable to the receiver. The receiver amplifies the IF signal, then it is processed through a combined tuning and frequency-changing operation. This results in the TV pictures and sound we are familiar with.

If a channel is encrypted, it is diverted through the receiver's decoder before being passed to your TV and VCR by either an aerial lead or, for better quality, a Scart lead.

LED DISPLAY – This shows the channel number and other system modes such as the LNB in use or DiSEqC switching.



CARD SLOT – Since many channels are encrypted in Videocrypt, a smart card must be inserted into the receiver's card slot to unscramble the signal. Some services, such as Japanese Satellite TV and Zee TV, require a different smart card to Sky's. See our guide on page 92 for details of how to get your card.

BUTTON CONTROLS – Basic function buttons which let you change channels and place the receiver on standby power. Particularly handy if you lose the remote control! They also let you set up features such as the parental lock and event timer – depending on the specifications of the receiver.



STEREO AUDIO OUTPUTS – For linking a hi-fi or surround sound system to the receiver to make full use of satellite's stereo sound. Use phono leads to link the left and right speakers.

UHF LOOPTHROUGH – A terrestrial aerial input and a modulator output which allow you to tune your TV to the satellite signal like any TV broadcast. To receive terrestrial channels connect the cables from your aerial to the antenna socket. The TV and VCR must then be connected via RF cables.

SCART SOCKETS – Used to link the receiver to other equipment such as a TV, VCR, decoder or a digital receiver. To get the best pictures and sound, it is recommended that Scart connections are used rather than RF cables.



vital parts

DISH – Points at satellites in the sky and picks up signals. A fixed 60cm dish is ample for receiving the Astra satellite in southern Britain, but an 80cm is recommended for the North. A larger dish is required for watching other satellites; 90 cm for 13°E for example. On motorised systems the dish moves satellite positions.

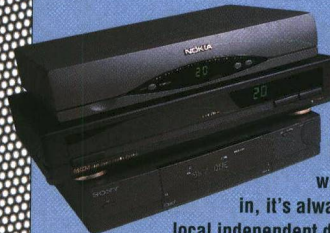
LNB – A low-noise block downconverter converts the received satellite signals into lower frequency electrical signals which are then sent down a cable to the receiver. Standard LNBs pick up a narrower frequency range than universal LNBs and therefore do not give reception of the high frequency bands used for digital transmissions, or some low band analogue transmissions.

LNB INPUT – Used to link your receiver to a dish and to transform the electrical signals received by your LNB into recognisable pictures and sound.

REMOTE CONTROL – Similar to a TV remote, but lets you control all the satellite receiver's functions.

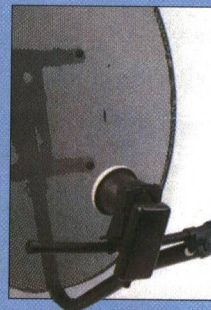
HOW TO BUY YOUR ANALOGUE SYSTEM

□ First decide how much money you want to spend. No-frills receivers like the Nokia 780 start at around £100, while all-singing, all-dancing systems such as the SCT Classic 1000 cost almost £3,000. It's worth spending a little extra at this stage on a more versatile system that can be used as part of a multi-satellite outfit in the future.

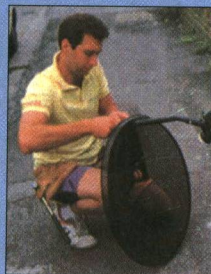


□ Choose a suitably priced model and decide where to buy it from. While the major high street stores will tempt you with low cost deals with Sky subscriptions tied in, it's always worth speaking to your local independent dealer where the staff tend to be better informed about satellite equipment and provide a good after-sales service.

□ Next, decide what sized dish you require. If your system is being installed by an expert (as we'd recommend), he should erect a 60cm diameter dish for the south of England or an 80cm antenna for the north of England, Scotland, Ireland and Cornwall. Note that an 80cm dish will cost about £20-30 more than a 60cm.



□ For those buying an ordinary Astra system, you'll probably receive a fitted universal LNB with your dish. But if you want to watch other satellites (such as Hot Bird at 13°E), it's worth considering a dual-feed bracket which has two LNBs. These simple add-ons cost from just £50 upwards and give you access to dozens more free channels.



□ Next, get the system installed. Some come with installation instructions, but unless you are a die-hard DIY enthusiast with a wide range of equipment, it's a job that's best left to the experts. Installation costs around £50-80, depending on the complexity of the system you have chosen, unless you have bought a system with installation included.

□ Once it's all in place and you've sampled the free channels on offer, you'll probably want to watch Sky's channels, which require a monthly subscription payment. Unless your system was bundled with a subscription, you should check the rates on page 92 then telephone Sky on 0990 102030 for details.



IRD FIXED DISH ANALOGUE SYSTEMS

System	System price	Number of channels	Channel tuning	Threshold	LNB inputs	Polariser control	Stereo	Wegener	Mono subcarrier	Audio tuning	Subcarrier tuning range	Audio de-emphasis	Audio bandwidth	Onscreen display	Channel naming	Event timer	Parental lock	Test card	Number AV Scans	Number decoder loops	Comments
Amstrad SRD700	£190 (£210)	300	P V	8dB	1	Voltage	●	—	●	V	5.50-8.50MHz	50µs/J17	S	●	●	●	—	●	1	1	Capable budget receiver
Amstrad SRD2000	£380 (£400)	300	P V	6dB	2	Voltage	●	●	●	V	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	●	3	1	Dolby Pro-Logic surround sound IRD with twin smart card slots
British Telecom SVS260	£100 (-)	299	P	6dB	1	Voltage	●	—	●	SV	5.00-9.00MHz	50µs/75µs/J17	S	—	—	—	●	—	1	—	Good performer with basic features only
British Telecom SVS300	£200 (£220)	199	P V	6dB	1	Voltage	●	—	●	V	5.00-9.00MHz	50µs/J17	S	●	●	●	●	●	2	1	Excellent build quality
British Telecom SVS350	£250 (£270)	199	P V	6dB	1	Voltage	●	—	●	V	5.00-9.00MHz	50µs/J17	S	●	●	●	●	●	2	1	Has unique BT Caller Display System showing telephone numbers onscreen
Echostar SR-90	£190 (£220)	199	P V	6dB	2	Voltage	●	—	●	V	5.00-9.00MHz	50µs/J17	S	●	●	●	●	—	2	1	Excellent picture but limited upgrade potential
Fidelity SR750F	£49	250	P V	7dB	1	Voltage	●	—	●	V	9.99-8.50MHz	50µs/J17	S	—	—	—	—	—	2	—	Budget receiver from Amstrad
Goodmans ST700	£100 (£120)	99	P V	6dB	1	Voltage	●	●	●	SV	5.00-9.00MHz	50µs	S	●	—	●	●	—	2	1	Available from Comet stores
Grundig GRD 200	£179 (£209)	200	P V	6dB	1	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17/ GNRS	S	●	●	●	●	—	2	1	User-friendly entry level system
Grundig GRD 280	£199 (£229)	280	P V	6dB	2	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17/ GNRS	S	●	●	●	●	—	2	2	Fine entry-level machine
Grundig GRD 300	£249 (£279)	300	P V	6dB	2	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17/ GNRS	S	●	●	●	●	—	2	2	Features front panel channel name display
Grundig GSR1 MKII	£100 (£130)	200	P V	6dB	1	Voltage	●	●	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	—	●	—	1	0	Well featured and flexible receiver
Grundig STR2200S	£100 (£130)	200	P V	6db	1	Voltage	●	●	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	●	●	—	1	0	Futuristic-looking £100 system
Grundig STR200S	£190 (£220)	200	P V	6db	1	Voltage	●	●	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	●	●	—	2	1	Good performer with DiSEqC switching
Hitachi SR2070D	£399 (£429)	250	P V	6.5dB	2	Voltage	●	●	●	V	5.00-9.00MHz	50µs/J17	S	●	●	●	●	—	3	2	Dolby Pro-Logic-equipped clone of Pace MSS1000
JVC TU-C200	£189 (£209)	200	P V	6dB	1	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17/ GNRS	S	●	●	●	●	—	2	1	JVC-badged clone of Grundig IRD available exclusively at Dixons/Currys
Maspro ST-5	£100 (£180)	200	P V	6dB	1	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	●	●	—	2	1	Simple to use receiver based on Grundig's GRD200
Maspro ST-9	£170 (£200)	280	P V	6dB	2	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	●	●	—	2	1	Good all-round 280 receiver with a great AV performance
Maspro ST-12	£200 (£230)	300	P V	6dB	2	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	●	●	—	2	1	Great mid-range receiver with extensive front panel display
Matsui OP10	£120 (£165)	129	P V	6.5dB	1	Voltage	●	—	●	V	5.00-9.00MHz	50/75µs/J17	S	—	—	—	●	—	1	—	Tempting budget proposition
Minerva SAT5000	£100 (£120)	100	P V	6dB	1	Voltage	●	—	●	SV	5.50-10.00MHz	50µs/J17/ GNRS	S	●	●	●	●	—	1	0	Basic budget system from Grundig
Mitsubishi ST-PB10	£199 (£219)	99	P V	6dB	1	Voltage	●	●	●	SV	5.00-9.00MHz	50µs	S	●	—	●	●	—	2	1	Pace-sourced receiver
Nokia SAT 800S	£220 (£250)	320	P V	7dB	1	Voltage	●	●	●	S	5.80-8.28MHz	50µs/J17	S	●	●	●	●	—	2	1	Improved version of SAT 800Plus
Nokia SAT1700 Mk2	£299 (£319)	250	P V	6.5dB	2	Voltage	●	●	●	V	5.00-9.00MHz	50µs/J17	S	●	●	●	●	—	2	1	Upgraded version of the award-winning SAT1700
Nokia SAT1800S	£300 (£330)	500	P V	7dB	2	Voltage	●	●	●	V	5.00-9.00MHz	50µs/J17	S	●	●	●	●	—	2	1	Includes VideoPlus+ and infrared VCR control capabilities
Nokia SAT780	£100 (£100)	120	P V	7dB	1	Voltage	—	—	●	SV	5.00-9.00MHz	50µs/J17	S	—	—	—	—	—	1	0	Very few facilities but with fabulous sound and picture
Pace MSS100	£180 (£200)	250	P V	6.5dB	1	Voltage	●	●	●	SV	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	—	2	1	Unusually styled compact IRD
Pace MSS200	£229 (£249)	199	P V	6.5dB	1	Voltage	●	●	●	SV	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	—	2	1	Budget receiver
Pace MSS290	£230 (£250)	250	P V	6.5dB	1	Voltage	●	●	●	SV	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	—	2	1	3D-Sound system for expanded stereo that mimics surround sound
Pace MSS300	£269 (£289)	250	P V	6.5dB	2	Voltage	●	●	●	SV	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	—	2	1	Pace mid-range receiver
Pace MSS500	£299 (£319)	250	P V	6.5dB	2	Voltage	●	●	●	SV	5.00-9.00MHz	50µs/J17	S	●	●	●	●	—	3	2	Non-Pro-Logic version of MSS1000 with positioner and two smart card slots
Pace MSS1000	£349 (£379)	250	P V	6.5dB	2	Voltage	●	●	●	SV	5.00-9.00MHz	50µs/J17	S	●	●	●	●	—	3	2	Dolby Pro-Logic-equipped receiver with two smart card slots
Palcom SL-300 IRD	£300 (£320)	99	P V	7dB	2	All/Current	●	—	●	V	5.50-9.99MHz	50µs/J17/ H-Fi 1600	S	●	—	—	●	—	1	1	Versatile IRD
Palcom SL-650R IRD	£399 (£419)	180	P V	7dB	2	All	●	—	●	V	5.50-10.00MHz	50µs/J17	S	●	—	—	●	—	1	—	Dedicated positioner unit available for multi-satellite upgrade
Panasonic TUSD250	£230 (£250)	250	P V	6.5dB	2	Voltage	●	●	●	SV	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	—	2	2	Clone of Pace PRD900plus
Philips STU3601	£215 (£250)	300	P V	6dB	2	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17/ GNRS	S	●	●	●	●	—	2	2	Impressive clone of Grundig GRD300
Philips STU1401	(£130)	140	P V	6dB	1	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	●	●	—	2	0	Well featured budget receiver available from Dixons
Philips STU3301	£180 (£196)	200	P	6db	1	Voltage	●	—	●	SV	5.50-9.99MHz	50µs/J17	S	●	●	●	●	—	2	1	Decent clone of Grundig's GRD200
Prima By Pace	£100 (£120)	125	P V	6dB	1	Voltage	●	●	●	V	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	—	1	—	Superb sound quality with lots of features



MOTORISED ANALOGUE SATELLITE SYSTEMS

System	Receiver/positioner price	Typical 90cm system price	Integrated single box	Number of channels	Number satellite positions	Threshold	Video bandwidth	Number LNB inputs	Dual band LNB switching	Extended IF tuning	External switch output	Polariser control	Skew stored per channel	Stereo	Subcarrier tuning range	Audio de-emphasis	Audio bandwidth	Remote control	Remote tuning	Onscreen display	Channel-naming	Event timer	Number AV Scarts	Number decoder loops	Separate stereo output	Separate video output	Separate baseband output	Comments
Connexions CX-200	£350	£550	●	200	50	6dB	S	1	●	●	●	Current Voltage	●	●	5.00-8.80MHz	50µs Adaptive	S	●	●	●	●	●	1	1	●	●	●	Well specified cut-price receiver
Discus Elipse	£430	£700	●	184	100	75dB	S	2	●	●	-	Voltage Current	-	●	4.20-8.20MHz	60µs J17	S	●	●	●	●	●	0	1	●	●	●	Capable receiver, but difficult to program
Drake ESR2000XT	£1345	£1600	●	2000	49	3dB	S	2	●	●	●	All	●	●	5.00-9.00MHz	50/75µs J17	V	●	●	●	●	●	2	2	●	●	●	Mac and Videocrypt decoders. First class
Drake ESR800XT	£999	£1250	●	800	49	3dB	S	2	●	●	●	All	●	●	5.00-9.00MHz	50/75µs J17	V	●	●	●	●	●	2	2	●	●	●	Versatile Mac/Videocrypt machine
Drake ESR800XTVC	£829	£1100	●	800	49	3dB	S	2	●	●	●	All	●	●	5.00-9.00MHz	50/75µs J17	V	●	●	●	●	●	2	2	●	●	●	Videocrypt only version of 800XT
Echostar LT-730Plus/AP750	£349	£599	-	200	60	4dB	S	1	●	-	-	All	-	●	5.00-8.80MHz	50µs/J17	S	●	●	●	●	●	0	2	●	●	●	Ultra-low threshold for weak signal reception
Echostar LT-8700	£825	£1255	●	1500	65	4dB	S	2	●	●	●	All	●	●	5.00-8.70MHz	50µs/J17 Adaptive	S	●	●	●	●	●	2	2	●	●	●	Videocrypt/Mac/Eurocrypt decoder & low threshold extn.
Echostar SR-5700VC	£519	£900	●	250	24	7dB	S	2	●	●	-	Current Voltage	●	●	5.50-8.70MHz	50µs/J17 Adaptive	S	●	●	●	●	●	1	1	●	-	-	With built-in Videocrypt decoder
Echostar SR-7700VC	£569	£969	●	1500	65	4dB	S	2	●	●	●	All	●	●	5.00-8.70MHz	50µs/J17	S	●	●	●	●	●	2	2	●	●	●	Including built-in Videocrypt decoder unit
Echostar SR-8700VC	£899	£1299	●	300	65	4dB	S	2	●	●	●	All	●	●	5.00-8.70MHz	50/75µs/J17	S	●	●	●	●	●	1	1	●	●	●	Videocrypt decoder and threshold extension
Manhattan XLT-9900 Plus	£250	£550	●	500	323	5dB	S	2	●	●	●	All	●	●	5-9MHz	50µs/J17 Wegener	S	●	●	●	●	●	2	1	●	-	-	Economically priced but with no videocrypt decoder
Monterey M140	£1,339	£1,599	●	1500	2003	5dB	S	2	●	●	●	All	●	●	5.00-9.50MHz	50/75µs/J17/ Wegener	S	●	●	●	●	●	0	3	●	●	●	Versatile and easy to use
Monterey SCT200E	£750	£1100	●	200	110	7dB	V	2	●	●	●	All	●	●	5.00-9.00MHz	50µs/J17 Wegener	S	●	●	●	●	●	0	3	●	●	●	Can be upgraded to the Monterey SCT500FD
Monterey SCT500FD	£995	£1500	●	350	110	7dB	V	2	●	●	●	All	●	-	5.00-9.00MHz	50µs/J17 Wegener	S	●	●	●	●	●	0	3	●	●	●	Extensive upgrade options available
Monterey Classic	£1940	£2200	●	1000	110	7dB	S	2	●	●	●	Voltage Pulse	●	●	5.00-9.00MHz	50/75µs/J17	S	●	●	●	●	●	0	3	●	●	●	Videocrypt/Mac decoders and four card slots
Nokia SAT 1800/5152	£340	£650	-	500	40	7dB	F	2	●	●	●	Voltage Current	●	●	5.00-9.00MHz	50µs/J17	S	●	●	●	●	●	2	1	●	-	-	Superb upgraded Astra system
Nokia Satscan	£280	£530	●	500	30	7dB	F	2	●	●	●	Voltage Current	●	●	5.00-9.00MHz	50µs/J17	S	●	●	●	●	●	2	1	●	-	-	Has one cable for signal and motor/control power
Pace MSS300/MSP995	£350	£520	-	250	128	6dB	F	2	●	●	-	Voltage Current	-	●	5.00-9.00MHz	50/75µs/J17 Wegener	S	●	●	●	●	●	2	1	●	-	-	Multi-satellite upgrade for Astra system
Pace MSS1000/posnr module	£449	£620	●	500	64	6dB	S	2	●	●	-	Voltage Current	●	●	5.00-9.00MHz	50/75µs/J17 Wegener	S	●	●	●	●	●	3	1	●	-	-	Internal positioner upgraded version of Pro-Logic IRD
Pace MSS500/posnr module	£349	£520	●	500	64	6dB	S	2	●	●	-	Voltage Current	●	●	5.00-9.00MHz	50/75µs/J17 Wegener	S	●	●	●	●	●	3	1	●	-	-	Internal positioner upgraded version of IRD
Palcom SL-650R IRD/SL-650P	£500	£800	-	180	50	7dB	S	2	●	●	●	All	●	●	5.50-9.99MHz	50µs/J17 Hi-fi 1600	S	●	●	●	●	●	1	1	●	●	●	Has built-in Videocrypt decoder
Palcom SL-7900RP	£599	£800	●	500	50	3dB	S	2	●	●	●	All	●	●	5.50-9.50MHz	50µs/J17 Hi-fi 1600	S	●	●	●	●	●	2	2	●	-	-	Successor to SL-4000RP
Palcom SL-8000RP	£749	£1100	●	500	50	3dB	S	3	●	●	●	All	●	●	5.50-9.50MHz	50µs/J17 Hi-fi 1600	S	●	●	●	●	●	2	2	●	-	-	Twin tuners onboard and picture-in-picture facility
ProVision ProVision V	£270	£500	●	400	30	4dB	S	2	●	●	-	All	●	●	5.00-9.99MHz	50/75µs J17	S	●	●	●	●	●	2	1	●	●	●	Very cheap, very versatile
ProVision PSR600	£299	£500	●	600	50	4dB	S	2	●	●	-	All	●	●	5.00-9.99MHz	50/75µs J17/ DNR	S	●	●	●	●	●	2	1	●	●	●	Affordable, competent yet poor, with weak signals
Strong SRT1500 MkII	£245	£450	●	400	503	5dB	S	2	●	●	●	All	●	●	5.00-9.00MHz	50/75µs/J17 Hi-fi	S	●	●	●	●	●	2	1	●	●	●	Mark II version features threshold extension
Technisat Multyfocus	£625	£1000	●	500	50	6dB	S	2	●	●	-	All	●	●	5.40-8.70MHz	50/75µs J17/TMSP	S	●	●	●	●	●	2	1	●	-	-	Includes built-in Videocrypt decoder
Uniden SQ590E	£700	£1090	●	1000	56	4dB	S	3	●	●	●	All	●	●	5.00-10.00MHz	50µs/J17	S	●	●	●	●	●	2	2	●	●	●	Second tuner built in for picture-in-picture

● See key on page 85

DIGITAL RECEIVERS

System	Receiver price	CAM	Local oscillator Adj	LNB offset	Number of LNB inputs	LNB loopthrough	DISEqC	FEC	SCPC compatible	Polariser control	Symbol rate range	Number of card slots	Common interface	Local oscillator range	Remote control	Onscreen display	EPG	Teletext	R232 interface	Modem output	SCSI output	Number AV outputs	Stereo audio outputs	Comments
Galaxis SAT 500	£465	Irdeto	S	•	1	•	•	S	-	Voltage	18000-30000	1	•	9,750-12,750GHz	•	•	•	•	•	•	•	2	•	Flexible and relatively cheap with a Common Interface
Nokia DVB9600S	£530	-	S	•	1	-	-	S	•	Voltage	1000-45000	-	•	9,750-12,650GHz	•	•	•	•	•	-	•	3	•	Version of DVB9200S with Common Interface
Nokia DVB9200S	£530	-	S	•	1	-	-	S	•	Voltage	1000-45000	1	-	9,750-12,750GHz	•	•	•	•	•	-	•	3	•	Great performer, but tricky with multi-satellite operation
Panasonic TU-DSB20	£370	Videoguard	S	•	1	-	•	S	-	Voltage	22000 & 27500	1	-	9,750-12,650GHz	•	•	•	•	•	-	•	2	•	Panasonic's Sky Digibox
Philips DSI 175B	£430	Seca	S	•	1	•	-	F	-	Voltage	27500	1	-	9,750-12,750GHz	•	•	•	•	•	-	•	2	•	Cheapest receiver, but tricky with multi-satellite operation
Digiquest P500 (aka Humax 550F)	£350	-	S	•	1	•	•	S	-	Voltage	18000-32000	-	-	9,750-12,750GHz	•	•	-	-	•	-	•	2	•	No SCPC channels or PIDs. Budget priced system.
Xcom CDTV200	£395	-	S	•	1	•	-	S	-	Voltage	15000-30000	-	-	9,750-12,750GHz	•	•	-	-	-	-	-	3	•	Low-cost system aimed at French users
Xcom CDTV350	£450	Viaccess	S	•	1	-	•	S	-	Voltage	15000-30000	1	-	9,750-12,750GHz	•	•	•	-	SCPC	-	-	2	•	Includes analogue reception but not SCPC channels
Echostar DS9800	£465	Irdeto	S	•	1	-	-	S	-	Voltage	18500-30000	1	-	9,750-12,750GHz	•	•	•	•	•	•	•	3	•	Simple to use but no DISEqC or SCPC channels
Galaxis FTA2	£349	-	S	•	1	-	•	S	•	Voltage	2000-36000	-	•	9,750-12,750GHz	•	•	•	•	•	-	-	2	•	Versatile, user-friendly receiver
Humax F1	£299	-	S	•	1	•	•	S	•	Voltage	2000-32000	-	-	9,750-12,750GHz	•	•	•	•	•	-	-	2	•	Cheap system with lots of features
Praxis 9600DVB	£450	-	S	•	3	•	•	S	•	Voltage	2000-45000	-	-	9,750-12,750GHz	•	•	-	•	-	-	-	2	•	Includes analogue reception
RSD ODM300	£399	-	S	•	1	-	•	S	•	Voltage	2000-45000	-	-	9,750-12,750GHz	•	•	-	•	-	-	-	2	•	User-friendly enthusiasts' system
Strong SRT4000	£360	-	S	•	1	•	•	S	•	Voltage	3000-32000	-	-	9,750-12,750GHz	•	•	-	-	•	-	-	3	•	User-friendly, but needs PC for upgrades
Digiquest P100 (aka Humax F1)	£299	-	S	•	1	•	•	S	•	Voltage	2000-32000	-	-	9,750-12,750GHz	•	•	•	•	•	-	-	2	•	Easy to use system with plenty of features
Digiquest P1000 (aka Humax F1-CI)	£349	-	S	•	1	•	•	S	•	Voltage	2000-32000	-	•	9,750-12,750GHz	•	•	•	•	•	-	-	2	•	Future proofed receiver with two CI slots
Lemon Volksbox	£395	-	S	•	1	•	•	S	•	Voltage	2000-30000	-	-	9,750-12,750GHz	•	•	-	•	•	•	-	2	•	Super receiver with digital, analogue and ADR
Manhattan ST-1000	£299	-	S	•	1	•	•	S	•	Voltage	2000-45000	-	-	9,750-12,750GHz	•	•	•	•	•	•	•	2	•	Low price digital system laden with features
Pace BskyB 2200/2300	£370	Videoguard	S	•	1	-	•	S	-	Voltage	22000 & 27500	1	-	9,750-12,750GHz	•	•	•	•	•	•	-	2	•	The first Sky Digibox on the market
Grundig GDS200	£370	Videoguard	S	•	1	-	•	S	-	Voltage	22000 & 27500	1	-	9,750-12,750GHz	•	•	•	•	•	•	-	2	•	Grundig's Sky Digibox
Amstrad DRX100	£370	Videoguard	S	•	1	-	•	S	-	Voltage	22000 & 27500	1	-	9,750-12,750GHz	•	•	•	•	•	•	-	2	•	Amstrad's Sky Digibox

D2-MAC/PAL SYSTEMS

System	Receiver price	System price	Number of channels	Channel tuning	Threshold	LNB inputs	Polariser control	MAC-PAL conversion	MAC teletext	Built-in decoder	Wegener	Mono subcarrier	Audio tuning	Subcarrier tuning range	Audio de-emphasis	Audio bandwidth	MAC soundtrack mixing	Remote tuning	Channel-naming	Event timer	Test card	Number AV Scans	Number decoder loops	Separate stereo output	Separate video output	Separate baseband output	MAC output	UHF loopthrough	UHF tuning range	Comments
Alphaglade Churchill	£264	-	-	-	-	-	-	•	•	EC	-	-	-	-	-	-	•	-	-	-	-	2	1	•	•	•	RGB	•	30-39	Decoder only with four Eurocrypt slots
Alphaglade Optimac	£210	-	-	-	-	-	-	-	•	EC	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	RGB	-	21-69	Well equipped decoder
Echostar SR-5700 MAC	£699	-	250	-	7dB	2	Current	•	•	EC	-	•	V	5.50-8.70MHz	50µs/J17	S	•	•	-	-	•	2	1	•	-	-	RGB	•	30-39	Threshold extension for weak signals
Echostar SR-8700 MAC	£975	£1399	1500	-	4dB	2	All	•	•	EC	-	•	S	5.00-8.70MHz	50/75µs/J17	S	•	•	•	•	•	1	1	•	•	•	RGB	•	30-39	Threshold extension for weak signals
Europa VCM600	£429	-	200	-	7dB	2	All	•	•	EC VC	-	•	S	5.00-9.00MHz	50µs/J17	S	-	•	-	-	•	1	1	•	-	-	RGB	•	30-39	Multi-satellite-upgradeable
Nokia Sat 2202	£435	-	199	P V	7dB	2	Voltage/Current	•	•	EC	•	•	V	5.50-9.00MHz	50µs/J17	S	•	•	-	-	•	2	1	•	-	•	RGB/S-VHS	•	30-39	Decoder only
Nokia 5918	£360	-	-	-	-	-	-	•	•	EC	-	-	-	-	-	-	-	-	-	-	-	2	1	•	-	•	RGB/S-VHS	•	30-39	Popular decoder that was previously a cable box
Philips CTU900	£230	-	-	-	-	-	-	-	•	EC	-	-	V	-	-	-	-	-	-	-	-	1	1	-	-	•	RGB/S-VHS	-	-	-
Philips STU-909/A	£549	£1299	120	P V	7dB	2	All	•	•	EC	•	•	S	6.50-8.50MHz	50µs/J17	S	•	•	•	•	-	2	1	•	-	-	RGB/S-VHS	•	28-42	Includes triple-band LNB

See key on page 85



KEY TO IRD FIXED DISH ANALOGUE SYSTEMS

'IRD' is short for integrated receiver/decoder. IRDs are designed to receive signals primarily from the Astra satellites, and, with the aid of a smart card, unscramble encrypted channels such as Sky Movies and The Adult Channel.

In order to receive the scrambled channels, receivers without integrated decoders have to be attached to an external Videocrypt decoder.

System price: The price of a complete southern UK system including dish. The price of the northern UK system which is accompanied by a larger dish, is given in brackets. However, some receivers are available without a dish, LNB or mount. This offers the buyer the opportunity of mixing and matching products from different manufacturers.

Number of channels: Each Astra satellite broadcasts 16 channels. There are currently four Astra satellites broadcasting in the same orbit, offering viewers some 64 channels.

Channel tuning: P (pre-programmed) or V (variable). Most receivers offer both.

Threshold: The carrier-to-noise threshold determines the picture quality when noise is present. The lower the better.

LNB inputs: Two LNB inputs allow multiple dish/LNB connections which enable the receiver to tune into more than one satellite at the same time.

Polariser control: Polarisers are controlled by current (magnetic), pulse (servo motor) and voltage (combined LNB polarisers of the Marconi type).

Only current and pulse allow skew adjustment, which is essential for multi-satellite upgrading. Several receivers are capable of handling all three types.

Stereo sound: Most Astra channels transmit stereo sound.

Wegener: The Wegener Panda 1 noise reduction system is standard

on Astra. Some receivers offer similar 'sound-alike' systems.

Mono subcarrier: Essential for sound on non-stereo channels on other satellites.

Audio tuning: F (fixed and inflexible), S (switchable), or V (variable – enabling any sub-carrier on Astra or other satellites to be tuned).

Subcarrier tuning range: Not all receivers manage the complete range of 5.00MHz-10.00MHz, which may mean they cannot receive some of the more obscure channels and radio stations.

Audio de-emphasis: This facility is required to match the sound pre-emphasis that is transmitted on different satellites.

Audio bandwidth: Required to receive the best sound, without noise, from audio channels transmitted with different bandwidths. Can be fixed, switchable and variable as with audio tuning.

Onscreen display: The tuning

information and channel selection details that are superimposed over the TV picture.

Channel-naming: The ability to name the channel onscreen. A very useful facility for keeping track of new satellite channels.

Event timer: Switches the receiver on and changes channels automatically, enabling satellite programmes to be recorded in your absence.

Parental lock: A code-operated system which enables the satellite viewer to block certain channels, thereby preventing children from watching late-night horror or pornographic material.

Test card: Patterned test card to aid the tuning-in process.

AV Scarts: For connection to a television or video recorder – provided in varying numbers. Offers superior quality pictures.

Decoder loops: For connection to other types of decoder – provided in varying numbers.

KEY TO DIGITAL RECEIVERS

To watch digital channels you need a DVB-compliant system instead of a conventional analogue receiver. A blob in a column indicates that the receiver has the feature. Adjustments are V (variable – they can take any value within a range), S (switchable – they take one of a number of discrete values) or F (fixed – they cannot be altered). Other column headings are explained here.

Receiver price: Digital receivers are typically sold without a dish as it is assumed that buyers have an antenna for analogue TV reception.

CAM: The Conditional Access Module provides the crucial conditional access technology required to decode the scrambled signals broadcast by the service provider.

DiSEqC: This facility enables you to control up to four LNBs (or dishes) from one LNB input.

FEC: Digital channels use differing Forward Error Correction rates (redundancy information signals added to digital signals to recognise and correct typical errors which occur during transmission). Selectable FEC is ideal.

SCPC Compatible: Some digital channels use a whole transponder's capacity, known as Single Channel Per Carrier. Your digital receiver should ideally have this facility.

Symbol rate range: The rate varies from channel to channel. Most use 27500, but they do vary.

Number card slots: Digital receivers require a suitable DVB viewing card to be inserted.

Common Interface: This enables several CAMs to be used for reception of several digital channel packages.

EPG: Some receivers have access to an electronic programme guide for programme information.

Teletext: If the receiver has a teletext option, you will be able to access normal text pages.

R232 Interface: Used to attach a computer printer or other peripherals to the receiver.

Modem output: Used to attach a telephone modem for accessing interactive services, when they are offered by broadcasters in the future.

SCSI output: High-speed data interface to allow you to link a CD-Rom, CD-player and video CDs in future.

KEY TO MOTORISED SYSTEMS

Viewing programmes from more than one satellite usually requires a motorised system. This includes a moving dish able to point towards the positions in the sky where the satellites are situated.

Also required is a positioner, which will be available either as a separate unit or, more commonly, integrated with the receiver.

As the receiver has to deal with a variety of frequency bands, broadcasting standards and audio modes, it has to be far more versatile and flexible than most of the receivers designed to receive signals from the Astra satellite alone.

Receiver/positioner price: The cost of the indoors end of the satellite system. Not all receivers are available separately.

System price: The price for a complete system with a 90cm motorised dish and single-band LNB.

Integrated single box: A circle indicates whether the positioner is integrated with the receiver. If not, the system will come as two separate indoor units.

Number of channels: There are

now an enormous number of TV channels and radio stations broadcasting via satellite.

Number of satellite positions: The more positions, the better. A figure under 20 may mean that not every satellite can be programmed into the positioner.

Threshold: Determines the picture quality with weaker signals. The lower the better.

Video bandwidth: By reducing the bandwidth, sparklies (small black and white flecks which appear on weak pictures) can be eradicated. Either F (fixed and not capable of reduction), S (switchable and better), or V (variable).

Number of LNB inputs: With two inputs, two dishes or LNBs can be operated by the system, enabling it to become even more versatile.

Dual-band LNB switching: Capable of switching the power supply between 13 and 18 volts to select different wavebands from a dual or triple-band LNB.

Extended IF tuning: A 950-2000MHz IF tuning range is required to cover the entire range of frequen-

cies with a triple-band LNB.

External switch output: Programmable 5 volts to 12 volts output to trigger an external LNB switch or other equipment.

Polariser control: Polarisers are controlled by either pulse (servo motor), current (magnetic), or voltage (combined LNB/polarisers of the Marconi type).

Skew stored per channel: Some receivers are only capable of storing one skew setting per satellite, which means that they are not suitable for wideband reception.

Stereo: Many satellites broadcast in stereo sound.

Subcarrier tuning range: Not all receivers are capable of receiving signals across the whole 5.00MHz-10.00MHz frequency range, which may limit their performance with more obscure satellite channels and radio stations.

Audio de-emphasis: A facility required to match the sound pre-emphasis transmitted on different satellites. J17 is required for the Telecom series of satellites, while Wegener is suitable for

the Astra group of satellites.

Remote control: You need never leave your armchair.

Remote tuning: Most receivers allow you to tune in from your armchair using the remote control.

Onscreen display: Superimposes channel and tuning information over the TV picture.

Channel-naming: Programmable text onscreen. This is very useful for multi-satellite set-ups.

Event timer: Used to switch on the receiver and change channels in your absence, enabling the recording of satellite programmes.

AV Scarts: For superior picture and sound quality when connected to a television or VCR – they vary in numbers provided.

Decoder loops: For connection to other decoders – they vary in numbers provided.

Separate stereo outputs: For connection to a hi-fi system or VCR.

Separate video outputs: For connection to a VCR or TV.

Separate baseband output: This connects to a satellite decoder or transcoder unit.

Open 7 Days
a Week61 BUXTON ROAD
(main A6),
DISLEY,
STOCKPORT.
SK12 2DZ
Mon-Sat 9:00-5:30
Sun 11:00-4:00Fax.
01663 766 668**retra**
The sign of a fair dealMember of
Confederation
of Aerial
Industries Ltd**D & C**U.K. &
Europe

THE UK's No.1

SKY

SKY AGENT

**SATELLITE & TELEVISION
INTERNATIONAL**

OPEN MON-SAT 01204 597 706

BOLTON



OPEN MON-SUN 01663 766 367

STOCKPORT



OPEN MON-SAT 01457 869 100

GLOSSOP

**01663 766 367**

FOR HEAD OFFICE & MAIL ORDER

PAGE MSS 1008-I/P**£379****GRUNDIG STR 300****£159****NOKIA 1800Satscan****£189**

Motorised 85cm dish system £399

Superb Picture and Sound Quality
Uses LNB cable to control dish position, therefore
single cable gives neat + tidy installation for multi-
satellite system (package price £399 with 85cm dish)**UPGRADE NOW...****NOKIA SATSCAN
MOTORISED SYSTEM****£379**

plus

SAVE
£££'sPHILIPS CTU 916
D₂MAC DECODER**£478****PHILIPS CTU 916****£99****TWO CARD READERS**D₂Mac Decoder with two card readers
On Screen Graphics - Eurocrypt M, S, S₂ descrambler
Enter new "multimac" codes - Video Text
Built in UHF Modulator - PAL or MAC output
FL display - Remote Control3 SCART sockets for TV/VCR/Decoder
Stereo Audio Out (Cinch) - S-VHS output - RGB output
Switching voltage SCART (pin 8)**RECONDITIONED RECEIVERS**
All with 6 Month Warranty

AMSTRAD 400	£44
AMSTRAD 510	£49
* AMSTRAD 540/545	£69
GRUNDIG GRD 150	£79
GRUNDIG GRD 250	£89
PAGE 900	£59
PAGE 900	£69
PAGE 900	£79
PAGE APOLLO	£79
PAGE MSS 100	£89
PAGE MSS 300	£119
JVC AD1000	£69
CAMBRIDGE ARD200	£69

* ASTRA 1D COMPATIBLE
£5 OFF THE PRICE OF ANY OF THE ABOVE
IF REQUIRED WITHOUT REMOTE CONTROL**SPECIALISTS IN MOTORISED SATELLITE SYSTEMS**

Visit the U.K.'s finest showroom for a demonstration

Installation teams throughout the North West
Mail Order & Export Specialists**D & C****SATELLITE & TELEVISION
INTERNATIONAL****01663 766 367 (3 lines)****0161 480 3500**

International Fax. +44 1663 766 668

European Agents ++ is for Country Access Code (00 in UK)

D&C Italy ++39 523 33 0426
D&C Spain ++34 6649 7286
D&C Germany ++49 89 905 39376
D&C Iceland ++354 897 3128
D&C France ++33 142 821365
D&C Russia ++78 462 329950
D&C Portugal ++35 165 80736
D&C Switzerland ++41 1984 1233**DIGITAL****sky digibox** **PAGE**sky digibox digital satellite system
fully installed from just £199**£199**BBC1, BBC2, BBC Choice,
BBC News 24,
CH4, CH5, TNT......up to 140 channels available
with sky digital subscriptionSubscriptions for sky digital cost
between £6.99 - £29.99 per month

sky digital

GENESIS 3 Analogue and DIGITAL LNB'sThis astounding new LNB greatly improves weak signals enabling better picture quality
on any size dish in all areas of the country"These LNBs deliver the best
results of the group...
In terms of performance
there is one outright
winner - the GENESIS 3"**GENESIS 3 40mm £125****GENESIS 3 C120 £135****GENESIS 3 XT2 £185 (twin LNB)****Satellite Dishes**

60cm £19.00

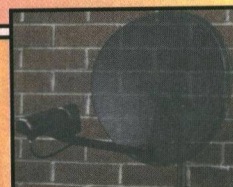
80cm £44.00

**LNBs**

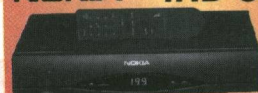
106GHz 0.7dB £34.95

9.75GHz 0.7dB £29.95

Grundig Twin £59.95

**Digital Satellite Dishes**

35cm with 0.7dB LNB only £49.00

NOKIA IRD SAT 780**£99****PAGE MSS 300****£179****IRTE OMNISAT****£229**IRTE OMNISAT
- MOTOR DRIVE KIT -
DIY kit to motorise your
existing satellite system
and pick up other satellites...
...enquire for details**£49**VideoLAB
Satellite Finder Kit**ALTAI Satellite Meter T136****PROFESSIONAL SATELLITE METER £149****BITS + BOBS**

VideoLab Satellite Finder Kit	£49.95
LNB's 0.8dB (quattro band)	£109
LNB's 0.9dB (quattro band)	£99
Polarisers	£35
Actuator Jack 12"	£59
Actuator Jack 18"	£69
90cm Dish & Pole Mount	£119
1.2m Dish & Pole Mount	£149
PowerMids/MultiLinks	£49
Universal LNB's	£39
Enhanced LNB's	£34.95
Enhanced Twin	£59.95
Roll of self amalgamating tape	£6.99
Satellite Cable (RG6)	£0.49/metre
Ribbon Cable (for motorised)	£1.76/metre
ADX + Astra1D converter	£19.95
4-Way TV distribution Amp	£24.95
8-Way TV distribution Amp	£32.95
21 Pin fully wired scart to scart	£5.95

ADULT CHANNEL CARD
OFFICIAL SCT & EROS Digital Card
Available now on HOTBIRD 2 & 3

NOKIA DIGITAL RECEIVER

9200 (Free to Air)	£349
9200 + Irdeeto Cam	£415
9600 (Free to Air)	£349
9602 (Free to Air)	£349
Panamsat + Irdeeto cam	£299

VISIOSAT

XENA 1500 Digital Receiver

* Digital 2 card reader * Via Access Cam
* 2 LNB Inputs * English display
* DISEQC control 1.0 * Multi sat reception

£389

MANHATTAN ST 2000ci
(2 Common Interface Slots)

OPENING HOURS:
Mon-Fri 9 - 5.30pm
Sat 10 - 4pm



314 Harehills Lane, Harehills, Leeds, England LS9 7BG
Tel +44 (0) 113 2264 000 Fax: +44 (0) 113 2264 001 Mobile: +44 (0) 468 195095
email: sales@microtec.co.uk Internet address 'http://www.microtec.co.uk'

HUMAX FI-Ci

With common twin interface unit and automatic selection **£349**

HUMAX FI

Free To Air Digital Receiver **£299**

CAMS

IRDETO **£75.00**
VIA ACCESS **£79.00**
CONEX CAM & CARD **£449.00**

DECODERS

PACE MSS300

Fully Motorised System
£325 + Installation

D2MAC (2 C/Reader)

PHILIPS VISIOPASS **£119**
EUROPLUS **£129**

ECHOSTAR SR200ip

£139
AD 2000ip **£479**

D2MAC CARDS on PIC or Wafer

Multimac Wafer EPOA	Smart
P.C.B. Boards £1+	Mouse £35
PIC 16C84 £1.80+	Smart Mouse
PIC Program £35.00	6.00M £59

Miscellaneous

Learning radio Remote	£65
Powerlink Remote Extender	£39
Power Max Clipper	£49
Global ADX Plus	£16
Lenson Heath Multi LNB Holder	£15
Johansson ID Converter	£19
Quartet Learn/Pre Prog Remote	£39
Optimum 8 Radio Remote	£79

Actuators

12in JAEGER	£44
18in JAEGER	£54
10in Opto-Electric (near silent)	£149
17in Opto-Electric (near silent)	£199

Receivers

Pace MSS300	£170
Amstrad SRD2000	£189

22Khz tone switch	£16	DISEQC 2 way switch	£14
22 KHz tone inserter	£15	DISEQC 4 way switch	£17

DVD PLAYERS NOW IN STOCK...

- PANASONIC A350 • PIONEER DV515 (1-6)
- TOSHIBA SD2108 (1-6)

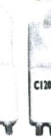
MULTIMODE DIY UPGRADE KITS AVAILABLE

WIDE SCREEN TV'S From **£549.00**

CINEMA 2816 28" 1639 3250 32" 1629

.5db UNIVERSAL LNB'S

Single with C120 flange Single Twin with C120 flange Twin Quattro with optional C120 flange Wideband



£39

£39

£59

£59

£79

£75

SPECIALISTS IN IMPORT & EXPORT

TRADE ENQUIRIES WELCOME

Tel: 0113 2264 000 Fax 0113 2264 001

GSM 0468 195095 All prices are subject to Carriage E & OE

Digital Cards



IRDETO Auto Switcher

For Any 2 Irdeeto Cards
Stream/Telepui

£35

ADX Astra 20
Frequency
Extender



skydigital
DIGITAL
AUTHORISED DEALER

DIGITAL CENTRE

on
DIGITAL
AUTHORISED DEALER

Join the Revolution -
All digital Equipment
can be viewed in our
new Demonstration
Room

**Trade
Prices**

with **Professional Service
and Expert Advice**

Mail Order
Enquiries
Welcome

**EUROPEAN
EXPORT
SPECIALISTS**

PLEASE
RING FOR
INFORMATION

skydigital

SYSTEMS
from
£199.00
(Fitted)

**DIY
MOTORISED
KIT**
Only
£139.00
inc polar mount
actuator
positioner

Satellite TV AWARDS
**NOKIA
9600S**
MEDIA MASTER
UK MODEL
FREE SMART
PRIORITY SWITCH
Now **£369.99**

Satellite TV AWARDS
**ECHOSTAR
AD200IP**
Analogue/Digital Receiver/Positioner
Only **£475.00**
**ECHOSTAR
LT8700**
Euro/Video Crypt UHF - Positioner
Only **£699.00**

**MOTORISED
SPECIALS**
Nokia 1800S
Now **£375.00**
Pace MSS300
Pace MSP200R
positioner
Now **£299.00**

PLEASE RING FOR THE BEST PRICES ON

MAIL ORDER
HOTLINE
0161 793 5049

**Platinum 3
cards**
Only **£79.99**
with Part ex.

DIY 1°W KIT
CTU916 + 80cm dish
LNB and scart
Only **£159**

Full range of
widescreen and Dolby
Pro Logic TV's + DVD
Players. Authorised
Philips Dealers

Full range of European
& Eastern Satellite
Equipment, e.g. 1°W
(D2 Mac) Euro 13° 16°
Telecom etc

0%
FINANCE ON
SELECTED ITEMS

Please give us a call if you have any questions about Digital Sat or TV

vision northwest
Satellite Centres

E-mail: nwass@provider.co.uk www.provider.co.uk/users/nwass
232 Chorley Road, Swinton, Manchester M27 6UN

Tel: **0161 793 5049**
0161 793 1383
Fax: **0161 794 0566**

Please ring for
installation prices
by our highly
qualified
engineers



skydigital
Authorised Dealer

TV1000

Canal +

on
digital

Jargon buster

DON'T LET THE JARGON AND
TECHNICAL BUZZ-WORDS
CONFUSE YOU

ADR (Astra Digital Radio) – A digital audio system in MPEG-1/layer 2 for transmitting digital audio signals within conventional audio subcarriers.

Actuator – A motor system that drives a motorised multi-satellite dish.

Antenna – Device which picks up and delivers satellite signals to a receiver, most commonly called a dish.

Apogee – The point in a satellite's orbit when it is at its farthest distance from the Earth.

Ariane – A non-reusable rocket system which has launched many European satellites into space.

Astra – The main satellites for UK reception. Astra 1A, 1B, 1C, 1D, 1E and 1F orbit the Earth at 19.2° east, delivering Sky, UK Gold, MTV and many others. A new batch of Astra birds is planned for 28.2°E.

AV (Audio-Visual) – A blanket term for audio and video. An AV system is a common description of a setup in which a TV and hi-fi are connected and working in tandem – as in a home cinema system.

Azimuth – The horizontal angle

between an antenna's reception path and a compass direction. It's usually expressed as a compass bearing or degrees east or west of south.

Bandwidth – Range of frequencies occupied by a signal or allowed by receiving equipment (basically, what a receiver is capable of receiving).

Baseband – The raw satellite TV signal before it is re-modulated to become a signal which is suitable for a TV.

Beam – A satellite transmission pattern. It may be wide, narrow or spot.

BER (Bit Error Rate) – The probability of errors occurring during a digital satellite transmission.

C-band – Signal frequency range (3.70–4.20GHz) used for satellite TV in America and Africa.

Chrominance – The section of a TV signal that carries the picture's colour information.

Clarke Belt – Named after its founder Arthur C Clarke, the Clarke Belt is an orbit used by satellites at a height of 22,250 miles, in which satellites make an orbit in 24 hours, yet



Live 24-hour news bulletins are offered by Sky News, CNN and BBC News 24

remain in a fixed position relative to the Earth's surface.

Co-ax – Name given to co-axial cable and connectors that are used for aerial and antenna cables.

Common Interface – A slot that enables a Common Interface module to be inserted in some digital receivers for watching pay-TV packages.

DBS band – Signal frequency range (11.70–12.40GHz) intended for direct TV broadcast by satellite channels. Not all TV satellites use this band.

DVB (Digital Video Broadcast) – The European digital TV standard.

Another letter is sometimes added (such as S in DVBS for satellite) to indicate the transmission method.

Decoder – Unit that is connected to a satellite receiver in order to unscramble a picture that is protected by encryption.

De-emphasis – A filter system that is integrated into a satellite receiver to reduce background audio noise, not unlike Dolby.

Demodulator – The section of a satellite receiver that is designed to extract both the audio and video information from an incoming signal.

Depolariser – A device that is used to convert circular polarised signals to linear. See Polariser.

DiSEqC – Facility that lets you control several LNBs or dishes from one LNB input.

Dish – See Antenna.

D-MAC/D2-MAC – Two variants of the MAC television format used in Europe. Failed satellite network BSB used the D-Mac system, while D2-Mac is currently used by several French and German satellite broadcasters.

Dolby NR – A type of noise reduction system found on audio cassette players.

Downlink – A signal's path from satellite to antenna.

ECM (Electronic counter measures) – Sent out 'over the air' occasionally by broadcasters to turn off pirate viewing cards.

EPG – Electronic Programme Guide that provides TV listings on screen.

Elevation – The vertical angle between an antenna's reception path and the horizontal.

Encryption – Technique of encoding a signal so that it is unwatchable without decoding equipment. Encrypted signals are usually reconstructed using a decoder and occasionally a smart card. Also known as 'scrambling'.

Event timer – Programmable timer built into many satellite receivers which switches on and changes channels for unattended video recording.

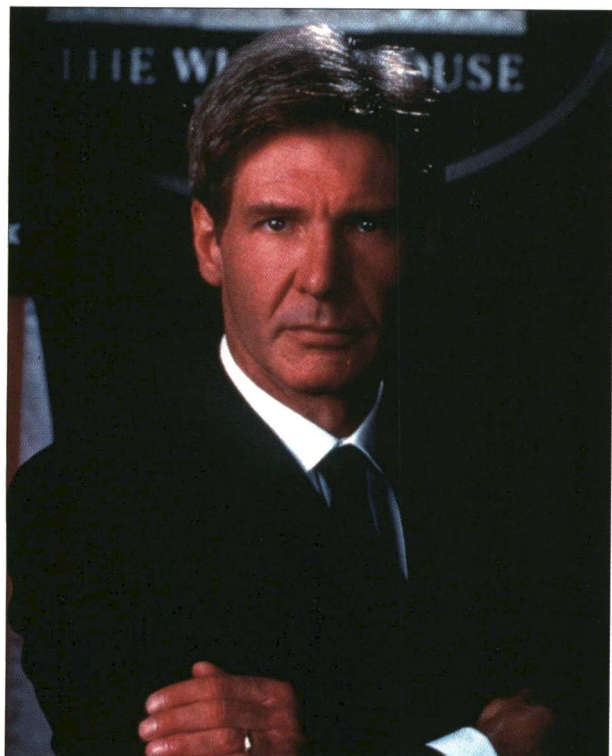
Extended IF tuning – Tuning range (950–2050MHz) required for full reception of Astra 1A–1D satellites with an enhanced 9.75GHz LNB.

FEC (Forward Error Correction) – Redundancy information signals are added to digital signals with the aim of recognising and correcting typical errors which occur during transmission.

F-Connector – A screw-on plug that is commonly used for LNB-to-satellite receiver connections.

Feedhorn – A device which collects the signals at the focus of the satellite dish and channels them to the LNB.

Fixed-dish system – Satellite system in which the dish is targeted at



Action-packed movies are available across more than a dozen channels in Sky's digital package

one particular satellite, almost always Astra.

Footprint – An area of the Earth that is able to receive a particular satellite's signals.

FSS (Fixed Satellite Services)

band – Portion of the Ku-band (10.95-11.70GHz) which is the main satellite TV band.

Geostationary orbit – See Clarke Belt.

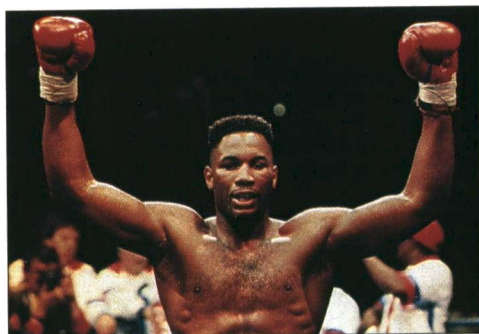
Horizon-to-horizon – A compact polar mount that allows a wide range of movement and accurate tracking of satellites.

IRD (Integrated receiver/decoder) – A satellite receiver with a built-in decoder for unscrambling subscription channels such as Sky Movies.

Ku-band – Signal frequency range (10.70-18.00GHz) used for most European TV satellites.

Loophthrough – Connections on a receiver which allow for external equipment, such as decoders, to be inserted into a TV's signal path.

LNB (Low Noise Block down-converter) – Amplifies received signals and converts them from microwaves to lower frequency signals which are then sent along a cable to the satellite receiver.



The boxing bouts that matter appear on the aptly named Sky Box Office

Luminance – A section of a television signal that carries the picture's brightness information.

MAC – A television transmission standard that was specially designed for satellite use.

Magnetic polariser – Polariser controlled by an electrical current from a satellite receiver.

Marconi-type LNB – A combined LNB/polariser commonly used on Astra systems with polarity selected by changing the voltage supplied by the satellite receiver to the LNB.

Mechanical polariser – A polariser that is controlled by electrical pulses from the receiver.

Microwave signals – Electronic radio frequency signals that are above one gigahertz.

Motorised system – See Multi-satellite system.

Multi-satellite system – System in which a specialised receiver, in conjunction with a motorised dish, receives signals from the series of satellites in the Clarke Belt.

Noise figure – A measure of the performance (noise contribution) of an LNB in decibels. The lower the said figure, the better.

NVOD (Near Video On Demand) – Staggered broadcasting of the same TV programme on several channels.

NTSC (National Television

Standards Committee) – TV transmission standard used in America and parts of Asia.

Orbit – The path a satellite takes around the Earth.

PAL (Phase Alternate Line) – Television system used by both British terrestrial and satellite broadcasters. Panda One – A noise reduction system similar to Dolby. It is used by Wegener to improve the quality of satellite audio transmissions.

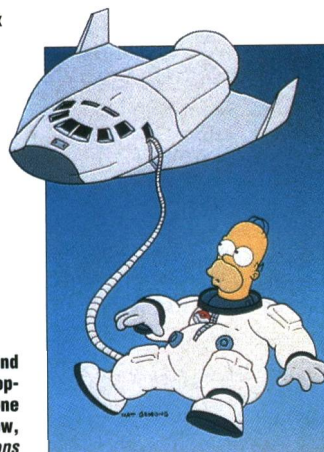
Parental lock – A lock found on most receivers which prevents access to certain channels. Usually operated by punching in a series of numbers.

Phono – Round sockets that are commonly found on the back panel of satellite receivers.

Polariser – Device on a dish that separates one polarity signal from another.

Polarity – The ability of satellite signals to differentiate between signals of similar frequencies, thus allowing more channels in the available broadcasting space. Signals are either linearly polarised (horizontal or vertical) or circularly polarised (left- and right-handed).

Polar mount – Multi-satellite dish mount which enables a satellite dish to track the whole of the Clarke Belt. Positioner – Unit which either accom-



See Homer and pals in the top-rated Sky One show, The Simpsons

CONTACTS AND ADDRESSES • CONTACTS AND ADDRESSES

ALBA:

Harvard House, 14-16 Thames Road, Barking, Essex. Tel: 0181-594 5533

AMSTRAD:

Brentwood House, 169 Kings Rd, Brentwood, Essex. Tel: 01277 228888

ASTRA UK:

The Progression Centre, 42 Mark Road, Hemel Hempstead, HP2 7DW. Tel: 01442 235540

BBC WORLD/PRIME:

Woodlands, 80 Wood Lane, London W12 0TT. Tel: 0181-576 2248

BRAVO:

See Flextech TV

BRITISH TELECOM:

West Side, London Rd, Hemel Hempstead, Herts, HP3 9YF. Tel: 01923 859777

BRITISH TELECOM INTL:

Holborn Centre, 120 Holborn, London EC1 2TE. Tel: 0171-492 2000

BUSH:

5 Old Parkbury Lane, Colney St, St Albans, Herts AL2 2DY. Tel: 01923 859777

CAMBRIDGE INDUSTRIES:

Cambridge House, 5 Commerce Park, Brunel Rd, Teale, Berks RG7 4AB. Tel: 01734 306699

CANAL PLUS NETHERLANDS:

Tolaan 63, 1932 Sint-Stevens-Woluive, Belgium. Tel: 0031 2356 81500

CARTOON NETWORK/TNT:

See Turner Broadcasting

CHALLENGE TV:

See Flextech TV

CHAMELEON ANTENNAS:

2 Union Place, Longford, Coventry CV6 6BT. Tel: 01203 644454

CHANNEL MASTER:

Glenfield Park, Northrop Ave, Blackburn,

Lancashire BB1 5QF. Tel: 01254 680444

CHINA NEWS & ENTERTAINMENT:

Marvic House, Bishops Rd, London SW6 7AD. Tel: 0171-610 3880

CHRISTIAN CHANNEL EUROPE:

3rd Floor, Crown House, Borough Road, Sunderland SR1 1HW.

Tel: 0191 4952244

CNBC:

4th Floor, 3 Shortlands, Hammersmith, London W6 8BX. Tel: 0181-600 6600

CNN INTERNATIONAL:

See Turner Broadcasting

CONFEDERATION OF AERIAL INDUSTRIES:

Fulton House Business Centre, Fulton Rd, Wembley Park, Middlesex HA9 0TF. Tel: 0181-902 8998

CONCENTRIC SATELLITE SYSTEM:

Delta Control, Island Farm Avenue, West Molesley KT8 2UZ. Tel: 0181-979 9334

CURRYS/DIXONS:

Currys/Dixons Store Group, Dixons House, 200 The Campus, Maylands Avenue, Hemel Hempstead, Herts HP2 7TG

DEPARTMENT OF THE ENVIRONMENT:

Whitehall, London SW1. Tel: 0171-276 3000

DISCOVERY CHANNEL:

See Flextech TV

DISNEY CHANNEL:

Avon House, Kensington Village, Avonmore Road, London W14 8TS. Tel: 0171-605 1300

DRAKE:

c/o Alston-Barry (UK) Ltd, 32 Broad Street, Ely, Cambridge CB7 4AH. Tel: 01353

669009

ECHOSTAR:

Schuilenbruglaan 5A, 7604 BJ Alemelo, Netherlands.

Tel: 0031 546 815122

EUROSAT:

1 Oxgate Centre, Oxgate Lane, London NW2 7JG. Tel: 0181-452 6699

EUROSPORT:

5 Drury Lane, London WC2B 5SQ. Tel: 0171-468 7777

EUREKA TRADING:

Eureka House, South Park Court, Macclesfield, SK11 8BS.

Tel: 01625 502100

EUTELSAT:

70 rue Balard, 75502 Paris Cedex 15, France. Tel: 00 331 4538 4757

FERGUSON:

Crown Road, Enfield EN1 1DZ. Tel: 0181-344 4444

FLEXTECH TV:

160 Great Portland Street, London W1N 5TB. Tel: 0171-462 3600

FOX KIDS:

See Sky

GAY TV:

See Television-X

GLOBAL COMMUNICATION:

Winterdale Manor, Althorne, Essex. Tel: 01621 744322

GOODMANS:

Units 2 & 3, Mitchell Way, Portsmouth, Hants PO3 5PR. Tel: 01705 673763

GRANADA SKY BROADCASTING:

16 Hatfields, London SE1 8DJ. Tel: 0171-578 4040

GRUNDIG:

Elstree Way, Borehamwood, WD6 1RX.

Tel: 0181-324 9400

GRUNDIG SATELLITE COMMUNICATIONS:

Unit 10, Llantrisant Business Park, Llantrisant, Mid Glamorgan CF7 8LF. Tel: 01443 220220

HITACHI:

Hitachi Sales (UK), Hitachi House, Station Rd, Hayes, Middlesex, UB3 4DR. Tel: 0181-849 200

INDEPENDENT TELEVISION COMMISSION:

33 Foley Street, London W1P 7LB. Tel: 0171-255 3000

IRTE:

Fielding Road, Cheshunt, Herts EN8 9TL. Tel: 01992 624777

JAPAN SATELLITE TV EUROPE:

Unit 17, Kings Exchange, Tileyard Road, London N7 9AH. Tel: 0171-607 7677

DISCOVERY HOME & LEISURE:

See Flextech TV

LEMON:

Wyzcom, 738 Upper Newtownards Rd, Dundonald, Belfast BT16 0RJ. Tel: 01232 483384

LENSON HEATH:

Thames Ind. Estate, Marlow, Bucks SL7 1TB. Tel: 01628 890820

LONGREACH:

6 Riverside Business Park, Lower Bristol Road, Bath. Tel: 01225 444894

MASPRO:

See Longreach

MBG:

10 Heathman's Rd. London SW6 4TJ. Tel: 0171-501 1111

MID SAT INTERNATIONAL:

12 Lower Bond St, Hinckley, Leicestershire.

panies a multi-satellite receiver or is built in and controls the movement of motorised dishes.

Pro-Logic – A surround sound system that was developed by Dolby for home cinema use.

Receiver – Unit which takes signals from a satellite dish and converts them so that they can appear on TV.

SCPC (Single Channel Per Carrier) – Some digital channels have their own carrier frequency and thus are independent from all other signals.

Sat-box – A slang name given to a satellite receiver.

Secam – French broadcasting system. On British PAL televisions, pictures appear in black and white.

SES (Société Européenne des Satellites) – An organisation that operates the Astra group of satellites.

Skew – Fine-tuning of the polarity which accounts for the different angles of signals from various satellites.

Smart card – A card used to descramble encrypted broadcasts when placed

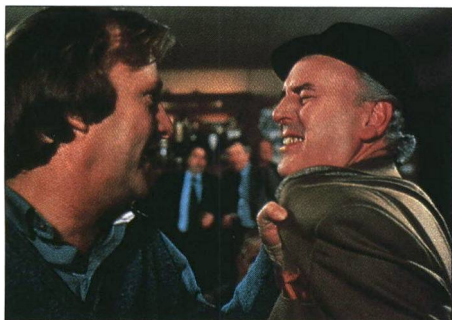
in a decoder or receiver with a built-in decoder.

Soft scrambling – Form of encryption which is unscrambled by a decoder without a smart card.

Sparklies – Black and white flecks which appear on satellite television pictures when the signal is too weak. They often appear during poor weather.

Squarial – Square-shaped satellite dish originally designed for use in BSB systems. Variations are now available for the Astra group of satellites.

Subcarrier – A secondary satellite signal used for an audio soundtrack. Some channels have different language commentary on three or four subcarriers, others are occupied by radio stations.



There are a dozen digital documentary channels that entertain and inform

Telecom band – A section of Ku-band frequencies (12.40–12.80GHz) that are used by French broadcasters.

Terrestrial broadcasters – Broadcasters which transmit through the airwaves from one Earthbound aerial to another, eg BBC and ITV.

Threshold – The measure of sensitivity of a satellite receiver measured in decibels (dB).

Transcoder – Device which translates signals from one broadcasting standard to another, e.g. PAL to Secam.

Transponder – Components in a satellite responsible for receiving, processing and retransmitting a signal up from, and back down to, Earth. On Astra satellites most stations are allocated one transponder,

though a small percentage of stations share a transponder.

Triple-band LNB – An LNB that is capable of receiving signals from all three bands – FSS, DBS and Telecom.

UHF (Ultra High Frequency) – Signal that is fed into a television's terrestrial socket.

Uplink – A signal's path from the Earth to a satellite.

VBR (Variable Bit Rate) – The bit rate changes depending on information content and enables a consistent picture quality to be maintained.

VideoCrypt – Encryption system which requires a decoder and smart card to be descrambled. Used by Sky and several other UK channels.

Voltage-switched LNB – Combined LNB/polariser commonly found on Astra systems with polarity selected by changing the voltage supplied to the LNB.

Wegener – See Panda One.

Wideband – IF tuning range (700–2050MHz) enabling Astra 1A–1D frequency reception for some older 10GHz LNBs.

Widescreen – A TV or TV signal with a wider aspect ratio than the traditional television standard. Widescreen televisions are 16:9 as opposed to the conventional 4:3 ■

CONTACTS AND ADDRESSES • CONTACTS AND ADDRESSES

Tel: 01455 250548

MTV AND VH-1:

Hawley Crescent, London NW1 8TT. Tel: 0171-284 7777

NATIONAL GEOGRAPHIC CHANNEL:

See Sky

NATIONAL TV LICENCE

RECORDS OFFICE (NTVLRO):

Barton House, Bond Street, Bristol BS98 1TL. Tel: 01272 230130

NEWS DATACOM:

1 Heathrow Boulevard, 286 Bath Road, West Drayton, Middlesex, UB7 0DQ. Tel: 0181-476 8000

NICKELODEON UK:

15/18 Rathbone Place, London W1P 1DF.

Tel: 0171-462 1000

NOKIA:

Bridgmead Close, Westmead, Swindon, Wilts SN5 7TS. Tel: 01793 556000

ONE FOR ALL:

Universal Electronics, Javastraat 92, 7512 ZKZ Enschede, The Netherlands. Tel: 0031 53 488 8000

PAGE:

Victoria Road, Saltaire, Shipley BD18 3LF. Tel: 01274 532000

PANASONIC:

Panasonic House, Willoughby Road, Bracknell, Berks RG12 4FP. Tel: 01344 862444

PARAMOUNT COMEDY CHANNEL:

15-18 Rathbone Place, London W1P 1DF. Tel: 0171-462 1000

PHILIPS:

City House, 420-430 London Rd, Croydon CR9 3QR. Tel: 0181-689 4444

PLAYBOY TV:

See Flextech TV

PRECISION METALS:

Mason Road, Stratford-on-Avon, Warks CV37 3QR. Tel: 01789 266131

PROTEL DISTRIBUTION:

Communication House, 879 High Road, London N12 8QA. Tel: 0181-445 4441

PROVISION LTD:

49 Berkeley Square, London W1X 5DB. Tel: 0171-491 7487

RSD COMMUNICATIONS:

Unit 9, 5 Munro Rd, Springkerse Ind. Estate, Stirling FK7 7UU. Tel: 01786 450572

SALORA:

See Nokia

SAMSUNG:

3 Riverbank Way, Great West Rd, Brentford, Middx TW8 9RE. Tel: 0181-862 9311

SATELLITE SOLUTIONS:

Unit 1, Hartburn Close, Crow Lane Industrial Park, Northampton NN3 9UE. Tel: 01604 787888

SCI-FI CHANNEL:

77 Charlotte Street, London W1P 2DD. Tel: 0171-805 6100

SCT:

3 Ware Road, Stanford in the Vale, Faringdon, Oxon SN7 8NY. Tel: 01367 710505

SHARP:

Sharp House, Thorp Road, Newton Heath, Manchester M10 9BE. Tel: 0161-205 2333

SKY SUBSCRIBER SERVICES:

1 Macintosh Road, Kirkton Campus, Livingston, Scotland EH54 7BW. Tel: 0990

102030

SKY:

6 Centaurs Business Park, Grant Way, Isleworth TW7 5QD. Tel: 0171-705 3000

SOCIETE EUROPEENNE DES SATELLITES:

Château de Betzdorf, L-6815 Betzdorf, Luxembourg. Tel: 00 352 7107251

SONY (UK) LTD:

The Heights, Brooklands, Weybridge, Surrey KT13 0XW. Tel: 0181-784 1144

STRONG:

Strong (UK) Ltd, 49 Berkeley Square, London W1X 5DB. Tel: 0171-491 7474

SWEDISH MICROWAVE:

See Satellite Solutions

TATUNG:

Stafford Park 10, Telford, Shropshire TF3 3AB. Tel: 01952 290111

TECHNISAT:

Technisat Satellitenfernsehprodukte GmbH, Postfach 560, 54541 Daun, Germany. Tel: 0049 6592 712600

TELEVISION-X/GAY TV:

PO Box 381, 4 Selsdon Way, London E14 9GL. Tel: 0171-987 5090

THOMSON CONSUMER ELECTRONICS:

9 Place des Vosges, La Défense 5, Courberroie 92050, France. Tel: 00 331 4904 9500

TOSHIBA:

Frimley Road, Frimley, Camberley, Surrey. Tel: 01276 62222

TRAC:

Commerce Way, Skipper Lane, Middlesbrough, Cleveland TS6 6UR. Tel: 01642 468145

TRANSWORLD SATELLITE:

The Ridings, Normanby, Whitby, North Yorks YO22 4PS. Tel: 01947 880019

TRAVEL:

Landmark Travel Channel, 66 Newman Street, London W1P 3LA. Tel: 0171-636 5401

TURNER BROADCASTING:

19-22 Rathbone Place, London W1 1DF. Tel: 0171-637 6700

TVBS SATELLITE CHANNEL:

30-31 Newman Street, London W1P 3PE. Tel: 0171-636 6818

TV DIRECT (THE ADULT CHANNEL):

Television Direct, Prince House, 43-51 Prince Street, Bristol BS1 4PS. Tel: 01179 252627

UK GOLD:

The Quadrangle, 180 Wardour Street, London W1V 4AE.

Tel: 0171-306 6100

LIVING:

See UK Gold. Tel: 0171-306 6170

UNIDEN:

See Eurosat

VH-1:

See MTV

ZEE TV:

Unit 7, Belvue Business Centre, Belvue Road, Northolt, Middlesex UB5 5QQ. Tel: 0181-841 5112



Once you've bought your satellite system and had it installed, you will quickly find that some channels broadcast remain an unwatchable mess of lines.

This is not a fault with your receiver – it's because these channels are scrambled and require you to buy a subscription. These pay-TV broadcasters have made subscribing a simple process; after all, it's in their financial interests to do so!

When subscribing to a pay channel you will receive a smart card that has been programmed with special codes to decrypt the picture. Insert this into the card slot on your receiver and you'll be able to watch a new channel!

Most scrambled channels in the UK are run by Sky and if you buy your system from a high street electrical store you will probably be offered a Sky subscription for a minimum period of a year. These deals usually force you to buy the full Sky package. If you buy your system from an independent dealer



Subsc to pay

instead, you may have the choice of subscribing to the channels you want – take a look at our table below for the prices and packages available. You can also buy viewing cards for a number of specialist channels.

Once you have signed the Sky subscription contract, the store or dealer sends it to Sky, which will send you a viewing card and ask you to telephone its special line to acknowledge that the card has arrived. An over-the-air signal is then sent to the card to activate it ■

ANALOGUE SUBSCRIPTION TABLE

What you get for how much at a glance

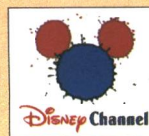
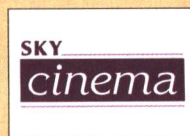
SKY PREMIUM CHANNELS					Current subscription charge per month	FREE BONUS CHANNELS		
Sky Multi-Channels Package	Sky Sports 1	Sky Sports 2	Sky Premier	Sky Moviemax		Sky Sports 3	Sky Cinema	Disney Channel
●	●	●	●	●	£29.99	●	●	●
●	●	●		●	£26.99	●		
●	●		●	●	£27.99	●	●	●
●	●	●	●	●	£28.99	●		
●	●	●	●	●	£27.99	●	●	●
●	●	●			£24.99	●		
●	●		●		£26.99	●		
●	●			●	£22.99	●		
●		●	●		£26.99	●		
●		●		●	£22.99	●		
●			●	●	£24.99		●	●
●	●				£20.99	●		
●		●			£20.99	●		
●			●		£22.99			
●				●	£18.99			
●					£11.99			
●					£4.99			●

Sky Multi-Channels (£11.99)

Sky One, UK Gold, Living, Discovery, Discovery Home and Leisure, Bravo, Nickelodeon, Challenge TV, MTV UK, QVC, National Geographic Channel, Sky Travel, Sky Soap, History Channel, Sci-Fi, Paramount Comedy Channel, VH-1, CNBC, Granada Plus, Granada Men and Motors, Granada Breeze, [tv], Fox Kids, Trouble, UK Horizons, Animal Planet, and Sky News



If your chosen option does not include the Disney Channel, you can still add the Disney Channel to your viewing package – currently for only £4.99 per month. Subscribe to both Sky Premier and Sky Moviemax and you will receive Sky Cinema and the Disney Channel at no extra cost. Subscribers to either Sky Sports 1 or Sky Sports 2, or both, receive Sky Sports 3 at no extra cost.



ribbing channels

Ever thought of
how to subscribe
and where? *Better
Satellite* guides
you through the
process

UK SATELLITE PAY SERVICES



ADULT CHANNEL
Tel: 0990 696900
Price: £65/year or
£37.50/six months



PLAYBOY CHANNEL
Tel: 0990 123321
Price: £6.99/month or
£83.88/year, plus £12
starter fee



RACING CHANNEL
Tel: 0990 215215
Price: £19.99/month
Mon-Sat service or
£7.50/month Sat only
service



TELEVISION X
Tel: 0990 220220
Price: £6.99/month or
£95.88/year plus £12
starter fee

**TVBS EUROPE (CHINESE
CHANNEL)**
Tel: 0171-636 8888

Price:
£299 for
Philips
digital
receiver,
plus £20/month
subscription, plus £15
registration fee.



Rental subscription deal:
£20/month for
subscription plus
£15/month for the
receiver – conditional on
a two-year subscription
and a £70 deposit

JAPANESE SATELLITE TV
Tel: 0171-426 7330

Price:
£100
joining fee
and
£30/month
quarterly in advance



ZEE TV
Tel: 0990 177177

Price:
£11.99/
month or
£143.88/
year plus a
one-off £12 joining fee



SKY BOX OFFICE

If you
have a
Digibox
you can
order
these events using the
Sky Guide, but if you
have an analogue
receiver you will need to
ensure that your satellite
receiver is on and that
your Sky viewing card is
inserted. Tune to the
channel on which the
event will be screened
and dial 0990 800 801
for Box Office 1, 0990
800 802 for Box Office 2,
0990 800 803 for Box
Office 3, or 0990 800 804
for Box Office 4. An
onscreen message,
Events Paid, will appear.



SKY DIGITAL SUBSCRIPTIONS

	Family	Popular Mix	Knowledge	Kids & Music	Lifestyle	Value
SKY WORLD Sky Sports 1, Sky Sports 2, Sky Premier, Sky Moviemax	£29.99	£28.99	£28.99	£28.99	£28.99	£27.99
SKY MOVIE WORLD Sky Premier, Sky Moviemax	£24.99	£23.99	£23.99	£23.99	£23.99	£22.99
SKY SPORTS WORLD Sky Sports 1, Sky Sports 2	£24.99	£23.99	£23.99	£23.99	£23.99	£22.99
Sky Sports 1, Sky Sports 2, Sky Premier	£28.99	£27.99	£27.99	£27.99	£27.99	£26.99
Sky Sports 1, Sky Premier, Sky Moviemax	£27.99	£26.99	£26.99	£26.99	£26.99	£25.99
Sky Sports 2, Sky Premier, Sky Moviemax	£27.99	£26.99	£26.99	£26.99	£26.99	£25.99
Sky Sports 1, Sky Sports 2, Sky Moviemax	£26.99	£25.99	£25.99	£25.99	£25.99	£24.99
Sky Sports 1, Sky Premier	£26.99	£25.99	£25.99	£25.99	£25.99	£24.99
Sky Sports 2, Sky Premier	£26.99	£25.99	£25.99	£25.99	£25.99	£24.99
Sky Sports 1, Sky Moviemax	£22.99	£21.99	£21.99	£21.99	£21.99	£20.99
Sky Sports 2, Sky Moviemax	£22.99	£21.99	£21.99	£21.99	£21.99	£20.99
Sky Premier	£22.99	£21.99	£21.99	£21.99	£21.99	£20.99
Sky Sports 1	£20.99	£19.99	£19.99	£19.99	£19.99	£18.99
Sky Sports 2	£20.99	£19.99	£19.99	£19.99	£19.99	£18.99
Sky Moviemax	£18.99	£17.99	£17.99	£17.99	£17.99	£16.99
Sky Entertainment Packages	£11.99	£8.99	£8.99	£8.99	£8.99	£6.99

*Plus Sky Sports 3, Sky Cinema and Disney Channel as a bonus * Plus Sky Cinema and Disney Channel
as a bonus *Plus Sky Sports 3 as a bonus

Disney Channel £4.99 Music Choice Extra £4.99 MUTV £4.99

If your chosen option does NOT include Disney Channel you can still add it, MUTV and Music Choice Extra to
your channel package for £4.99 each a month

When subscribing to Sky Digital,
you'll need to pick one of the six
Sky Entertainment packages below
and then choose your required
Premium Channels.

■ **SKY FAMILY PACKAGE**
Sky One, Bravo, Sky Soap,
Challenge TV, Granada Plus, UK
Gold, UK Gold Classics, Paramount
Comedy, Tara, Sci-Fi, Sky News,
Bloomberg, CNBC, Sky Sports
News, Discovery, Discovery + Thr,
Travel & Adventure, Civilisations,
Sci-Trek, Animal Planet, History,
National Geographic, UK Horizons,
[tv], Fox Kids, Nickelodeon,
Cartoon Network 1&2, Trouble,
Living, Home & Leisure, UK Style,
Sky Travel, UK Arena, Men &
Motors, Granada Breeze, QVC,
MTV, M2, VH-1, The Box, UK Play
and ten free Music Choice stations.

■ **POPULAR MIX PACKAGE**
Discovery, Discovery + Thr,
Nickelodeon, Cartoon Network 1&2,
Fox Kids, Paramount, UK Gold, UK
Play, Nat Geo, Living PLUS all the
Value Package channels below.

■ **KNOWLEDGE PACKAGE**
Discovery, Discovery + Thr, Nat
Geo, History Channel, CNBC, UK
Horizons, [tv] and Animal Planet
PLUS all the Value Package
channels below.

■ **KIDS & MUSIC PACKAGE**
Nickelodeon, Fox Kids, Trouble,
Cartoon Network 1&2, MTV, VH-1,
M2, The Box, UK Play PLUS all the
Value Package channels below.

■ **LIFESTYLE PACKAGE**
Trouble, Challenge TV, Bravo, UK
Style, UK Arena, Granada Plus,
Granada Breeze, Men & Motors
PLUS all the Value Package
channels below.

■ **VALUE PACKAGE**
Sky One, Sky News, Discovery
Home & Leisure, Bloomberg, QVC,
10 Music Choice audio channels.

■ **FREE CHANNELS:**
These channels are available free if
you have a Sky or BBC viewing
card: BBC1, BBC2, BBC Choice,
BBC News 24, BBC Parliament,
BBC Knowledge (June), Channel 4,
Channel 5, CNN, TV Travel Shop,
Shop1, and Travel.

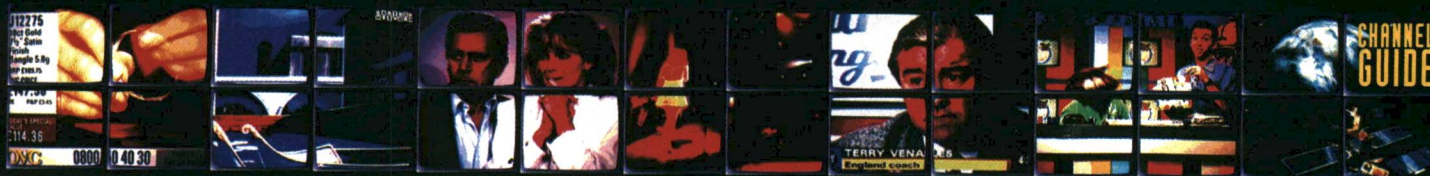


Across the channels

To help you through the growing number of channels on satellite TV, from free channels to pay-TV channels, *Better Satellite* has constructed a no-nonsense guide to the stations on offer. Over the next few pages we'll give you the

complete low-down on the dozens of stations available. Digital frequencies refer to those on the Astra 2A satellite at 28.2°E, while the remainder are analogue frequencies on Astra 1A, 1B, 1C and 1D at 19°E.

	ANIMAL PLANET Content: Monkeying around in the animal kingdom. Documentaries to tell you everything you ever wanted to know about all living creatures. Comment: It's real wild, man.	Analogue Frequency: 10.744GHz/Horizontal 12am-12pm	Digital Frequency: 11.876GHz/Horizontal 6am-midnight
	BBC ONE Content: General entertainment mix of comedy, documentary, drama, news and sport from the country's public service broadcaster. Comment: Lord Reith's spirit of education and entertainment lives on.	Analogue Frequency:	Digital Frequency: 11.720GHz/Horizontal
	BBC TWO Content: Public service broadcasting of a more highbrow nature – a mix of documentaries, cult comedy, challenging drama and news analysis. Comment: Watch those zany Beeb 2 logos!	Analogue Frequency:	Digital Frequency: 11.720GHz/Horizontal
	BBC CHOICE Content: Sports events, dramas and current affairs. Its schedule supplements major BBC1 and BBC2 shows by providing related behind-the-scenes programmes, live studio debates and after-show reactions to shows like <i>Crimewatch UK</i> and <i>Match Of The Day</i> . Comment: All the best selected from Auntie.	Analogue Frequency:	Digital Frequency: 11.720GHz/Horizontal
	BBC KNOWLEDGE Content: Educational programmes for schoolchildren and adult learners. Comment: Do you yearn to learn?	Analogue Frequency:	Digital Frequency: 11.720GHz/Horizontal Starts June
	BBC NEWS 24 Content: The latest news from around the world 24 hours a day as it breaks. Comment: News from our own correspondents.	Analogue Frequency:	Digital Frequency: 11.720GHz/Horizontal 24 hours
	BBC PARLIAMENT Content: Uninterrupted coverage of our nation's leaders in the Commons, Lords and select committees. Comment: Jaw,jaw..	Analogue Frequency:	Digital Frequency: 12.148GHz/Horizontal
	THE BOX Content: Interactive music channel that allows viewers to select music videos. Comment: Rock around the clock.	Analogue Frequency: 11.244GHz/Horizontal 2am-6am	Digital Frequency: 11.758GHz/Horizontal 24 hours
	BLOOMBERG Content: 24-hour news service offering constantly updated news, sport, weather, business and entertainment on a 30-minute rolling schedule. Comment: Rolling, rolling, rolling!	Analogue Frequency: 10.744GHz/Horizontal 6am-1pm	Digital Frequency: 12.148GHz/Horizontal 24 hours
	BRAVO Content: Fast-paced schedule of TV for the boys – sex, women, wrestling and more sex. Comment: One for the lads.	Analogue Frequency: 11.097GHz/Vertical 8pm-6am	Digital Frequency: 11.740GHz/Vertical midday to midnight
	CARTOON NETWORK Content: Wall-to-wall cartoons taken from Turner Broadcasting's vast library of animated classics, and the archives of all the main cartoon studios, including Hanna-Barbera, Warner Brothers and MGM. Comment: Animation for all ages.	Analogue Frequency: 11.023GHz/Horizontal 5am-9pm	Digital Frequency: 12.051GHz/Vertical
	CHALLENGE TV Content: It had to come one day...a non-stop game show channel! This channel is for all those who think life's just a game. Regular inserts between programmes called <i>Prize Time</i> give viewers the chance to win prizes themselves. Comment: Challenging television.	Analogue Frequency: 10.994GHz/Horizontal 5pm-5am	Digital Frequency: 11.740GHz/Vertical 6am-midnight
	CHANNEL 5 Content: The first terrestrial channel to appear on satellite TV too, Channel 5 is aimed at youth. Since it is soft-scrambled you require a Videocrypt decoder to watch it. Comment: Do you really want your news to be presented in a glow-in-the-dark studio?	Analogue Frequency: 10.921GHz/Horizontal 24 hours	Digital Frequency: 11.758GHz/Horizontal 24 hours



	THE CHRISTIAN CHANNEL EUROPE Content: Bible-based extraterrestrial religious ministry for families. Aiming for the soul, it broadcasts non-violent, positive programmes that reflect Christian views, beliefs and lifestyle. Comment: This could well be Heaven's favourite satellite channel.	Analogue Frequency: 11.568GHz/Vertical 4am-11am	Digital Frequency:
	CNBC Content: European-based business news channel with an American feel. CNBC presents a global perspective with extensive news and business programming. Comment: Stars and stripes-style news and business feast.	Analogue Frequency: 10.728GHz/Vertical 24 hours	Digital Frequency: 11.758GHz/Horizontal 24 hours
	CNN INTERNATIONAL Content: Round-the-clock news service made famous by its astonishing reports from Baghdad during the Gulf War. Cable News Network International provides an objective global perspective on major world events. Comment: Up-to-the-minute news delivered with all the charm of American TV.	Analogue Frequency: 11.627GHz/Vertical 24 hours	Digital Frequency: 12.051GHz/Horizontal
	[.TV] Content: Computer games and computer news for people who can't get enough of their little mechanical boxes at work. Comment: Fun for the terminally PC.	Analogue Frequency: 10.847GHz/Vertical 6pm-8pm	Digital Frequency: 12.225GHz/Horizontal
	THE DISCOVERY CHANNEL Content: Adventure, travel, nature, history and technology. Discovery is satellite TV's best-known documentary channel. It provides high-quality, informative, educational and entertaining programmes that cover a wide range of subjects. Comment: Everything you wanted to know about everything.	Analogue Frequency: 11.082GHz/Horizontal 4pm-2am	Digital Frequency: 11.954GHz/Horizontal 6am-2am
	DISCOVERY HOME & LEISURE Content: If you enjoy a spot of DIY, fishing, cooking, craft-making, art or even gardening, this is the channel for you. It's from the same stable as the Discovery Channel. Comment: From viewing to doing.	Analogue Frequency: 11.082GHz/Horizontal 6am-4pm	Digital Frequency: 11.876GHz/Horizontal 6am-1am
	DISCOVERY SCI-TREK Content: Programmes following the latest scientific breakthroughs and finding out about the people who make them. Comment: Boldly going where no one has gone before.	Analogue Frequency:	Digital Frequency: 11.876GHz/Horizontal 6am-1am
	DISCOVERY CIVILISATIONS Content: Delves into the events that have forged the destiny of nations and given birth to cultures, creeds and conflicts. Comment: The ascent of Man.	Analogue Frequency:	Digital Frequency: 11.876GHz/Horizontal 6am-1am
	DISCOVERY TIMESHIFT Content: Shows the normal Discovery Channel an hour on - so should you miss anything, you can catch it an hour later. Comment: Enjoy your favourite docs all over again!	Analogue Frequency:	Digital Frequency: 11.876GHz/Horizontal 7am-1am
	DISCOVERY TRAVEL & ADVENTURE Content: Striking out to far-flung corners of the Earth with documentaries following explorers and naturalists. Comment: Are you ready to take the trips of a lifetime?	Analogue Frequency:	Digital Frequency: 11.876GHz/Horizontal 6am-1am
	EUROSPORT Content: Extensive pan-European sports coverage. Eurosport takes in vastly different areas of sporting activities, with a strong emphasis on tennis, motorsports and athletics. British Eurosport is available to digital viewers. Comment: A sport junkie's dream channel.	Analogue Frequency: 11.258GHz/Vertical 7.30am-12.30am	Digital Frequency:
	FOX KIDS NETWORK Content: More cartoons and fun-filled fare to keep those pesky kids quiet, including such gems as <i>Inspector Gadget</i> and <i>Samurai Pizza Cats</i> . Comment: Progs for the sprogs.	Analogue Frequency: 11.303GHz/Horizontal 6am-7pm	Digital Frequency: 11.758GHz/Horizontal 6am-7pm
	GRANADA BREEZE Content: It's aimed at women. Granada describes it as the 'indispensable guide to improving your life'. Comment: Life's a breeze when you have satellite.	Analogue Frequency: 10.847GHz/Vertical 6am-6pm	Digital Frequency: 12.226GHz/Horizontal 6am-6pm
	GRANADA MEN AND MOTORS Content: Women, women, women, and the odd motor with a woman on top. Comment: Toys for the boys.	Analogue Frequency: 11.244GHz/Horizontal 11pm-2am	Digital Frequency: 12.148GHz/Horizontal 11pm-2am
	GRANADA PLUS Content: Granada's equivalent of UK Gold with rerun after rerun, including old favourites like <i>Coronation Street</i> , <i>The Professionals</i> , and <i>Sherlock Holmes</i> . Plus loads of <i>Corrie</i> repeats. Comment: Did we repeat ourselves?	Analogue Frequency: 11.244GHz/Horizontal 6am-11pm	Digital Frequency: 12.148GHz/Horizontal 6pm-11pm
	THE HISTORY CHANNEL Content: Documentaries and programmes that put major historic events into perspective. Comment: Too little time to look back.	Analogue Frequency: 11.568GHz/Vertical 4pm-8pm	Digital Frequency: 12.226GHz/Horizontal 11am-12am
	LIVING Content: Although aimed at a female audience, Living no doubt also picks up a sizeable number of viewers from the other half of the species. Top BBC cookery shows share with that chatty Springer bloke. Comment: Daily diet of trivia.	Analogue Frequency: 10.979GHz/Vertical 6am to 12am	Digital Frequency: 11.740GHz/Vertical 6am to 12am



M2 Content: Described as the 'flip side of MTV', M2 plays off-the-wall music from bands that haven't made it to the big time yet. Comment: Still fast and furious, but proud to be British.

Analogue Frequency:

Digital Frequency:
11.895GHz/Vertical
24 hours



MTV IN THE UK Content: Expect the usual diversity of music with soul, rap, rock and dance music to be augmented with a healthy dose of all things British. From Oasis to underground jungle virtuosi Goldie and Grooverider. Comment: Still fast and furious, but proud to be British.

Analogue Frequency:
11.421GHz/Horizontal
24 hours

Digital Frequency:
11.895GHz/Vertical
24 hours



NATIONAL GEOGRAPHIC CHANNEL Content: National Geographic provides 'enlightening programmes' on animals, natural history and life. Comment: From magazine page to screen.

Analogue Frequency:
11.303GHz/Horizontal
7pm-1am

Digital Frequency:
11.856GHz/Vertical
12pm-1am



NICKELODEON Content: Nickelodeon claims to provide the sort of TV kids want to watch, with plenty of *Clarissa Explains It All* and *Sister, Sister*. Comment: Nippers with attitude.

Analogue Frequency:
11.156GHz/Vertical
7pm-8pm

Digital Frequency:
11.895GHz/Vertical
7am-8pm



PARAMOUNT COMEDY CHANNEL Content: Hilarious mix of classic and cult comedy from the same people who bring you Nickelodeon. Highlights are *Cheers*, *Roseanne* and *Frasier*. There's even a half-humorous announcer who speaks over the end-credits. Comment: Laugh a minute.

Analogue Frequency:
11.156GHz/Vertical
7pm-4am

Digital Frequency:
11.895GHz/Vertical
7pm-4am



QUANTUM TV

Content: Shopping.
Comment: Need we say more?

Analogue Frequency:
11.258GHz/Vertical
1am-7.30am

Digital Frequency:



QVC Content: QVC (Quality, Value and Convenience) offers satellite viewers the enviable opportunity to spend their day and night shopping for all those items they've always wanted – mops, frying pans, and electronic organisers. Comment: Spend, spend, spend.

Analogue Frequency:
11.038GHz/Vertical

Digital Frequency:
11.934GHz/Vertical



S4C

Content: News and entertainment from the land of mountains and sheep, with a good sprinkling of Welsh humour. Comment: Welsh wonders.

Analogue Frequency:

Digital Frequency:
12.149GHz/Vertical



THE SCI-FI CHANNEL Content: The Sci-Fi Channel has several older cult science-fiction and horror series on offer alongside a range of classic and kitsch films and series. It is a real must-see for the terminally spaced-out. Comment: Watch this space.

Analogue Frequency:
11.568GHz/Vertical
8pm-12am

Digital Frequency:
11.895GHz/Vertical
8pm-4am



SHOP!

Content: Yup, more shopping.
Comment: Get your wallets at the ready.

Analogue Frequency:
11.258GHz/Vertical
1am-8am

Digital Frequency:
12.051GHz/Vertical



SKY ONE Content: Sky's general entertainment channel which boasts an impressive selection of imported soaps and cultish drama productions, such as *The X-Files*, and *Star Trek* spin-offs *The Next Generation* and *Deep Space Nine*. Comment: Satellite TV's most-watched channel.

Analogue Frequency:
11.318GHz/Vertical
24 hours

Digital Frequency:
11.837GHz/Vertical
24 hours



SKY NEWS Content: The Sky network's free, all-day news service. On-the-hour bulletins keep satellite viewers up to date with breaking stories worldwide. News programming is up-to-date and slickly presented, with much of the channel's global news-gathering provided by Reuters. Comment: News when you need it.

Analogue Frequency:
11.377GHz/Vertical
24 hours

Digital Frequency:
12.070GHz/Horizontal
24 hours



SKY SOAP Content: Sudsy heaven for soap opera fans, but as interesting as old bath water for the rest of us. Hardly likely to challenge the Albert Square or Ramsay Street crowds. Comment: A non-medicinal alternative to early-morning Valium.

Analogue Frequency:
11.568GHz/Vertical
11am-4pm

Digital Frequency:
12.168GHz/Vertical
11am-4pm



SKY SPORTS NEWS Content: Keep up with the latest on football transfers, fixtures news, and comment on the world of sport. Comment: I'm over the moon, Brian.

Analogue Frequency:

Digital Frequency:
12.168GHz/Vertical
24 hours



SKY TRAVEL Content: Pretend you're in the far-flung corners of the globe with Sky's travel channel. The station screens solely travel-based programmes throughout its schedules, from holiday guides and tips to travelogues and cooking shows. Comment: Get away from it all for a few hours a day.

Analogue Frequency:
11.127GHz/Vertical
11am-4pm

Digital Frequency:
12.168GHz/Vertical
11am-4pm



TARA Content: TV with an Irish flavour – news, views and music from the Emerald Isle. Comment: Be like Scarlett O'Hara, go back to Tara.

Analogue Frequency:

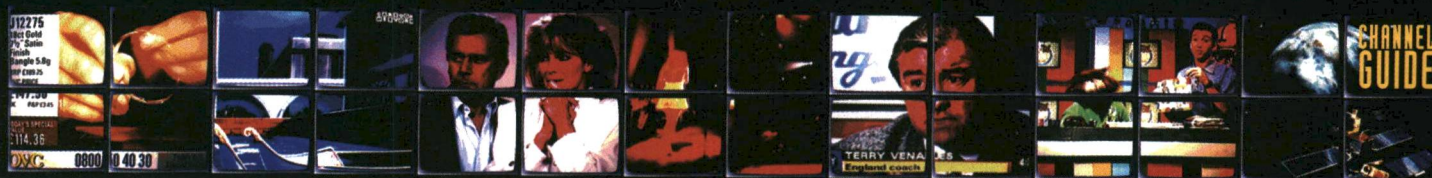
Digital Frequency:
12.168GHz/Vertical



TNT Content: TNT (Turner Network Television) presents a selection of star movies from the golden age of the silver screen. Comment: Don't expect to see Arnie flexing his muscles.

Analogue Frequency:
11.023GHz/Horizontal
9pm-5am

Digital Frequency:



TRAVEL

Content: The name says it all, really. Look out for Frank Bough in his own talk show.
Comment: Round the world in 30 minutes.

Analogue Frequency:

Digital Frequency:
12.051GHz/Vertical



TROUBLE

Content: A channel aimed at teenagers that's actually quite rejuvenating for the rest of us too. Remember your first crush, your first kiss and contributing to the gossip about the class nerd? There's not a zit in sight and it's good, clean fun. Comment: Hey dude, chill out!

Analogue Frequency:
11.097GHz/Vertical
7am-8pm

Digital Frequency:
11.740GHz/Vertical
7am to midnight



TV TRAVEL SHOP

Content: Now you don't need to get out of your armchair to book your hols with this QVC-type channel.
Comment: Pretend your armchair is a deckchair.

Analogue Frequency:
10.818GHz/Vertical
5am-6pm

Digital Frequency:
11.740GHz/Vertical



UK GOLD

Content: A channel devoted to BBC and Thames Television repeats, UK Gold presents classic series once shown on terrestrial TV.
Comment: Did we repeat ourselves again.

Analogue Frequency:
11.553GHz/Horizontal
7am-2am

Digital Frequency:
11.817GHz/Vertical
7am to 2am



UK GOLD CLASSICS

Content: A channel devoted to BBC and Thames Television repeats, UK Gold presents classic series once shown on terrestrial TV. Soaps (*EastEnders*, *Neighbours*), dramas (*The Sweeney*, *Minder*, *Casualty*) and comedy shows are the mainstay of the channel. Comment: A selection of terrestrial TV's greatest hits.

Analogue Frequency:

Digital Frequency:
11.817GHz/Vertical
7am to 2am Fri-Sun



UK HORIZONS

Content: The best documentaries from the Beeb's archives get an airing here.
Comment: Gives Discovery a run for its money.

Analogue Frequency:
10.832GHz/Horizontal
7am-1am

Digital Frequency:
11.817GHz/Vertical
7am-1am



UK STYLE

Content: Go for a makeover with shows on beauty, health and related interests. It's a woman's world here.
Comment: You've either got or you haven't got style.

Analogue Frequency:

Digital Frequency:
11.817GHz/Vertical
7am-1am



UK ARENA

Content: Aimed at the arty and educated among us. Its shows include *The Comic Strip Presents...* *Call My Bluff* and classic films.
Comment: Put your brain cells to the test.

Analogue Frequency:

Digital Frequency:
11.817GHz/Vertical
4pm-1am



UK PLAY

Content: A youth-targeted mix of music and comedy.
Comment: Foot-tapping laughs.

Analogue Frequency:

Digital Frequency:
11.817GHz/Vertical
7am-1am



VH-1

Content: VH-1 has avoided the trap of playing middle of the road AOR (the specs and rugs and rock-and-roll brigade), picking up instead a dynamic mix of old and new rock and pop. The likes of Neil Young, Oasis, Blur and the Clash all get a look in. Anyone above school age will find something they like. Comment: Face the music.

Analogue Frequency:
11.538GHz/Vertical
24 hours

Digital Frequency:
11.895GHz/Vertical
24 hours



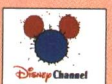
WHAT'S IN STORE

Content: Shopping is in store here.
Comment: Infomercials. Wonderful things.

Analogue Frequency:
11.273GHz/Horizontal
5am-10am

Digital Frequency:

sky premium channels



DISNEY CHANNEL

Content: Disney Channel provides general entertainment. Hilarious comedies such as *Home Improvement* go out during its evening hours. Currently a bonus channel for those buying both film channels.
Comment: Walt a great channel.

Analogue Frequency:
11.597GHz/Vertical
7am-midnight

Digital Frequency:
12.090GHz/Vertical
8am-10pm



SKY MOVIEMAX

Content: One of Sky's two premium film channels, it claims a slightly more pacy 'youthful and aggressive' slant to its line-up than its twin channel. In digital there are four channels. Comment: Smell the popcorn.

Analogue Frequency:
11.436GHz/Vertical
24 hours

Digital Frequency:
11.837GHz/Horizontal
24 hours



SKY PREMIER

Content: 12 blockbuster films are screened each day. In digital there are four main channels plus a widescreen version.
Comment: Movie heaven.

Analogue Frequency:
11.479GHz/Vertical
24 hours

Digital Frequency:
11.837GHz/Horizontal
24 hours



SKY SPORTS 1

Content: Every football fan's dream channel, Sky Sports indulges in a positive orgy of live soccer during the Premiership season. The channel's depth and breadth of sports coverage is second to none, taking in everything from basketball and tennis to wrestling and motor sports. Comment: We'll support you evermore.

Analogue Frequency:
11.508GHz/Vertical
7am-2am

Digital Frequency:
11.837GHz/Horizontal
7am-2am

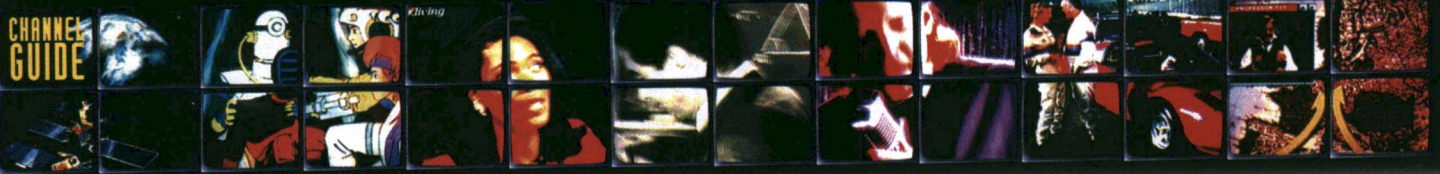


SKY SPORTS 2

Content: Sky Sports 2 allowed Sky to be in two places at the same time - the advent of Sky Sports 3 increases the options still further.
Comment: Altogether now! You'll never walk alone...

Analogue Frequency:
11.171GHz/Horizontal
7am-3am

Digital Frequency:
11.856GHz/Vertical
7am-3am



bonus channels



SKY CINEMA Content: 'Classic' movies – both old and of relatively recent vintage – from Sky's ever-increasing archives. Sky Cinema is the bonus channel offered free to Sky subscribers who have opted for both premium movie channels. Comment: A mix and match of old and not-so-old movies that is very hard to resist.

Analogue Frequency:
11.127GHz/Vertical
4pm–6am

Digital Frequency:
12.070GHz/Horizontal
10pm–6am



SKY SPORTS 3 Content: A mix of live coverage, including the Nationwide League (football league divisions one, two and three), the Coca Cola Cup and those inevitable repeats. Comment: Sky will soon have to invent new sports to fill all its sports channels.

Analogue Frequency:
11.671GHz/Horizontal
12pm–12am

Digital Frequency:
11.914GHz/Vertical
12pm–12am

extra subscription channels



AFTER MIDNIGHT Content: Pay-per-night erotica from the folk behind Playboy TV. Comment: Do you get it every night?

Analogue Frequency:
10.788GHz/Vertical

Digital Frequency:
12.226GHz/Horizontal



THE ADULT CHANNEL Content: Mixed bag of erotic entertainment from the UK's first sex channel. Soft porn movies, raunchy 'comedy' series, sex guides, wet-T-shirt-type fare and the occasional gay interest programme. Comment: Your mother wouldn't like it.

Analogue Frequency:
11.568GHz/Vertical
12am–4am

Digital Frequency:



FILM FOUR Content: Independent British films from the Channel 4 archives broadcast from 12am–4am. Comment: Best of British.

Analogue Frequency:
10.862GHz/Horizontal

Digital Frequency:
12.246GHz/Vertical

Astra foreign analogue channels



All these foreign channels are available to you from the Astra 19.2°E satellites. They're ideal for expats living away from home, those who are learning a second language and even those who just want access to more varied entertainment!

ARTE

10.714GHz/Horizontal

A pan-European French/German language channel which broadcasts arts-based programmes daily between 6pm and 2am. Documentaries, concerts and theatrical performances are offered alongside classic films. Recent programmes have included *Armstrong And Miller* and the movie *Wanted Dead Or Alive*.

QVC GERMANY

10.759GHz/Horizontal

The second of QVC's European shopping channels offers much the same products as the English version. As you would expect, prices are in Deutschmarks and there's a German commentary.

JSTV

10.773GHz/Horizontal

Europe's only Japanese language channel is aimed at ex-pat commu-

nities and business people working abroad. It's broadcast from 10am to midnight every day, you'll need a subscription to watch. Call 0171-607 7677.

ZEE TV

10.788GHz/Vertical

Blockbuster Asian movies, live news reports and general entertainment offered in languages such as Hindi, Urdu, Gujarati and English. Shown daily from 7am-midnight, call 01506 484411 for info.

PHOENIX

11.009GHz/Horizontal

A German language news/documentary channel, blending news with live coverage of German and EU parliaments. A joint project between ARD and ZDF, Phoenix broadcasts for 16 hours a day and departs from the approach of rivals like N-TV and CNN by putting journalists in the back seat.

HOME ORDER TV

10.906GHz/Vertical

A slick German-language shopping channel which shows QVC that it has a rival! Much of the 24-hour programming is shown live from Hot TV's German studios, with products ranging from jewellery to alarm clocks.

TM3

10.934GHz/Vertical

A channel aimed at German women which offers plenty of English-language talk shows, weepy films and, of course, cookery programmes with German subtitles. Broadcasts daily from 6am to 6pm.

ZDF

10.964GHz/Horizontal

A general entertainment channel that re-transmits many programmes only shown before on terrestrial television in Germany. A cornucopia of news, current affairs shows and documentaries from 5am to midnight.

WEST 3

11.053GHz/Horizontal

Regional terrestrial channel that, as its name suggests, is aimed at Western Germany. Broadcast from 8am to midnight, it offers drama, comedy and factual programming of interest to all age groups. In the weekday mornings it shows a regular keep-fit session from 7am.

HESSEN FERNSEHEN

11.068GHz/Vertical

German-language channel which offers general entertainment programming. It broadcasts for 24 hours every day.

MDR

11.112GHz/Horizontal

A 24-hour German channel that provides viewers with a wide range of programming from films and drama to factual shows and documentaries. There are also regular news bulletins around the clock.

BR3

11.141GHz/Horizontal

A regional German terrestrial channel that really gives you a flavour of what it's like to live in that country. Language learners can listen in to the channel's unusual accents every day between 4am and 1am.

SWF3

11.186GHz/Vertical

A general entertainment channel aimed at Germany which gives its viewers the opportunity to sample the news and local programming from a different region of the country. It broadcasts 24 hours every day.

RTL-2

11.214GHz/Horizontal

RTL-2 boasts a 24-hour youth oriented schedule for Germany which is similar to that of Sky One. It also broadcasts many American movies throughout the day, dubbed into German.

RTL

11.229GHz/Vertical

American shows such as *Magnum PI*, *Jeopardy* and *Ellen* fill the schedules of RTL, which broadcasts from 6am to 3am daily, but they are all dubbed into German. It also has plenty of US soaps, mini-series, dramas, news and films.

VOX

11.273GHz/Horizontal

The soft porn movies which are shown every Friday and Saturday night make this German channel popular with many viewers around Europe. Broadcast daily from midday to 6am, Vox also offers soaps, dramas and news.

SAT1

11.288GHz/Vertical

Game shows, soaps, chat shows and late-night erotica from the US make up much of the schedule on SAT-1, which broadcasts from 5am to 1am daily – although it's all dubbed into the German language. Programmes include *Baywatch*, *Star Trek: Voyager*, and *Monty Python's Flying Circus*.

KABEL1

11.332GHz/Vertical

A German general entertainment channel which broadcasts for 24 hours a day.



MU TV Content: Presents news and views and just about everything to do with Manchester United Football Club. Comment: It's not a matter of life or death, it's more important than that to Manchester United fanatics.

Analogue Frequency:

Digital Frequency:
12.168GHz/Vertical



PLAYBOY TV Content: Billed as erotica for lovers rather than the usual slap 'n' tickle fare that's usually found on other UK porn channels. Couples are supposedly the target audience so there are lovers' guides and telephone call-in shows. Comment: Your father would like it!

Analogue Frequency:
11.671GHz/Horizontal
12am-4am

Digital Frequency:
12.226GHz/Horizontal



THE RACING CHANNEL Content: The Racing Channel could be your (nose)bag, broadcasting daily two race meetings, and spicing up the day with regular racing features. Comment: Horses for courses. Put that tenner on the nose.

Analogue Frequency:
10.877GHz/Vertical
11am-7pm

Digital Frequency:
12.051GHz/Vertical
11am-7pm



RAINBOW TV Content: News, views and general entertainment for those in the lesbian and gay communities. Comment: Come out the closet and enjoy!

Analogue Frequency:

Digital Frequency:
[Starts summer 99]



SKY BOX OFFICE Content: Sky Box Office offers pay-per-view entertainment. In digital there are 50 Box Office channels. Comment: Rent a video without moving from your armchair!

Analogue Frequency:
11.597GHz/V, 10.877GHz/V,
10.847GHz/V, 11.362GHz/H

Digital Frequency:
Numerous



TVX - THE FANTASY CHANNEL Content: A soft-core porn channel presenting adult entertainment fare, including movies, dramas, documentaries and comedy, presented in a somewhat tongue-in-cheek package. You can subscribe with a single phone call. Comment: Sex, sighs and Videocrypt.

Analogue Frequency:
10.979GHz/Vertical
12am-4am

Digital Frequency:

Eutelsat II F1, Hot Bird 1/2/3/4/5

The following free English-language channels are broadcast from the satellites at 13°E. To watch them, you require a 90cm dish fitted with either a dual-feed LNB or a motorised dish.



BBC WORLD Round-the-clock news channel which provides in-depth reporting, live coverage of breaking news and feature programmes like *Film 97*, *Airport* and *Holiday*. Comment: Auntie's gone global.

Analogue Frequency:
10.989GHz/Vertical
24 hours

Digital Frequency:



DEUTSCHE WELLE Global German channel which offers a number of in-depth English language news and lifestyle shows every day. Comment: Germany calling.

Analogue Frequency:
11.163GHz/Vertical
24 hours

Digital Frequency:



EURONEWS Non-stop news service from a European perspective. Provides reports and features from right across the Continent - from Blackpool to Bucharest. Comment: Best argument for a united Europe yet.

Analogue Frequency:
11.585GHz/Vertical
5am-1am

Digital Frequency:



NATIONAL GEOGRAPHIC CHANNEL Content: Launched on September 1, National Geographic provides 'enlightening programmes' on animals, natural history and life. Comment: From page to screen.

Analogue Frequency:
10.987GHz/Vertical
24 hours

Digital Frequency:

Music Choice audio channels

Offering uninterrupted digital quality music around the clock, 10 Music Choice audio channels are included free in all Sky Digital packages;

Hit List
Love Songs
Country
Classical Favourites
Gold 70s and 80s
Generation Rock
dance
Jazz
Blues
Easy Listening

The following additional Music Choice stations can be received by Sky Digital viewers for an extra £4.99/month;

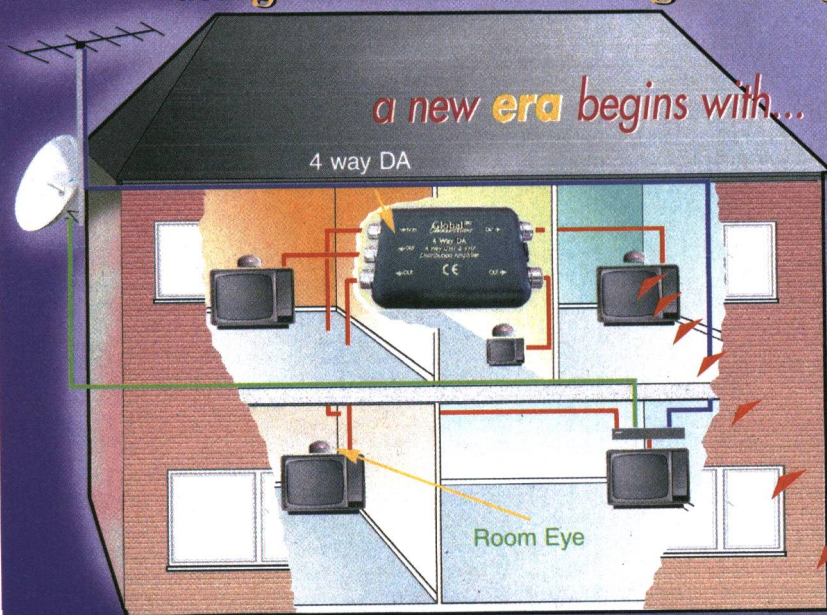
Classical Rock
Soft Rock
Heavy Rock
Old Gold 50s and 60s
Soul Classics
Soul, Rhythm & Rhyme
Reggae
Latin
Progressive Dance
New Country
Jazz II
Big Band

Classical Symphonic
Opera & Vocal Works
Classical Baroque & Early Music
Classical Adventures
Musicals
Film Music
New Age/Moods
Bella Italia
Les Grandes Chansons
Children's Channel/Singers and Standards
Spirit Of Ireland
Turk Muzik
Arabe
Sounds Of India
World Music
Deutscher Rock

Les Tubes Francais
Schlager
Volksmusik
Vlaanderen Muziekland
Hollands Populair
Hit Kanal Norden

You can listen to all Music Choice channels 24 hours a day, uninterrupted by DJs or ads. To find out what's playing, check out the onscreen Sky TV Guide where Music Choice's Song ID shows the artist, album, track title and record label for each song playing - all the information you need when you want to buy a CD from your local record store or through Music Choice's website at www.musicchoice.co.uk

View High Quality Digital Images in additional rooms
using Global's new range of Digital Accessories



GLOBALdigital
Satellite & Terrestrial TV related products

- ♦ Fully compatible with SkyDigital tLINK system
- ♦ Fully cascable
- ♦ Easy installation
- ♦ No additional mains wiring

Product range:

- ♦ 2 & 4 way distribution amplifiers
- ♦ 7 way distribution amplifiers
- ♦ DIP1 internal Diplexer
- ♦ DIP2-DC external Diplexer
- ♦ DCI IN-LINE Power inserter & Power Supply (can be used without a Sky Digibox)

no other manufacturers distribution amplifiers fully support the tLINK



Global Communications (UK) Ltd.

Winterdale Manor, Southminster Road, Althorne, Essex England CM3 6BX

Tel: +44 (0) 1621 744322 Fax: +44 (0) 01621 743676

www.globalcom.co.uk email: info@globalcom.co.uk

CABLE & SATELLITE
STAND NO. 524



Authorised
Agents

COSMOS SATELLITE SYSTEMS

Distributor of Satellite and Aerial Equipment MAAAME EAAHNIKA

Distributors of Satellite Equipment Chaparral Main Agent in Ireland * SCT Classic 1000
only £2,100 * Pace * Grundig * Sky Digital Systems Available now from only £499.99
(includes free installation) Greek digital Nova TV with 18 channels available now.

**AUTHORISED AGENT OF THE AWARD WINNING
VIDEO PRECISION GENESIS 3 LNB**

Voted by What Satellite as the Best Satellite TV Accessory



Digital Receivers, Nokia * Humax FI & FCI * Pace from £299 Including Greek, Spanish,
Italian, French, Arabic etc. from £550 Motorised Satellite Systems supplied and installed
from £1,000 D2 Mac Decoders and D2 Mac cards, D2 Mac upgrades all channels 1" W £15.
Authorised SKY, ZEE TV agent, racing channel Mail order - tax free export worldwide
Trade and Overseas enquiries welcome
See our new Pro-Logic Showroom

ABBEY SHOPPING CENTRE

Drogheda, Co. Louth, Ireland

Tel: (+) 353 41 984 1002 Tel/Fax: (+) 353 41 98 28526

Mobile: (+) 353 87257 6018 Email: kosmos@indigo.ie



N.T.V. SATELLITE

Now available, Sky digital
receivers and d boxes for Italian,
Spanish, French, Arabic etc

ECHOSTAR LT 8700 VC/D2Mac£POA
NOKIA DVB 9600S, all cams available.....£POA
PACE MSS 300, 60cm system.....£POA
NOKIA 1800S Satscan 60/80cm systems.....£POA
GRUNDIG STR300 60-80cm system.....£POA
D2 MAC DECODERS IN STOCK.....£POA
PACE MSS 1000 60/80cm system.....£POA
NOKIA DVB 9200S with Irdeto cam available.£POA
Sat Walker with Challenger positioner

- FIXED AND MOTORISED
- SYSTEMS SPECIALISTS
- TURKISH, ARABIC AND ITALIAN CHANNELS
- SHOWROOM FACILITY
- SKY DECODERS
- SKY AUTHORISED AGENT
- SATELLITE REPAIR SERVICES
- COMMUNAL SYSTEMS
- PUBS, CLUBS, HOTELS
- CAI QUALIFIED ENGINEERS



Leading specialists in large
dish systems for Africa and
The Middle East

Phone for Best
Prices Around

Full demonstrations available for all digital and analogue channels.
Special Offers in store.

MAIN EXPORTER IN CENTRAL LONDON

0171-580 5288 - Fax: 0171-580 7598

FREE SITE SURVEY - NO OBLIGATION

232 TOTTENHAM COURT ROAD, LONDON W1P 9AE

Advertisers Index

IFC	Video Precision
4	SCC
21	Digital 2000
30	Bradley Wood
35	Essex
	Space Cam
	SCB
	Visual World
	Cansolve
47	International
	Satellite City
54	Keene
55	Spectrum
56 - 57	Techtronics
60	SMS
62 - 63	Signal Masters
68	Lektropaelis
70	Myers Audio
86 - 87	D & C Satellite
88	Microtech
	N W Aerials
100	Global Comm
	Cosmos
	NTV
101 to 105	Dealers Directory and CAI Guide
IBC	Vision On
OBC	Steve Chiluer

better satellite

BRITAIN'S QUARTERLY BUYERS GUIDE

REGIONAL DIRECTORY

YOUR GUIDE TO NATIONWIDE SPECIALIST DEALERS

DEALERS

The new market place to sell equipment

ADVERTISING RATES

	1x	2x	4x
3x1	£65	£60	£55
6x1	£126	£114	£102

Rates exclude VAT.

Prepayment required for first three adverts

To participate ring
CLASSIFIED DEPARTMENT
ON

0171 331 1295

LONDON

Satellite

Receivers • Dishes • LNBs



AUTHORISED AGENT

Motorised Systems -
Fixed Systems
DECODERS & CARDS
DIGITAL RECEIVERS
WE EXPORT TO ANY COUNTRY

GRUNDIG **PACE**
NOKIA **ECHOSTAR**

NEWVISION

ELECTRONICS LTD.

242 TOTTENHAM COURT RD,
LONDON W1P 9AD

Fax: 0171-580 4599

Tel: 0171-580 8394

N.T.V. SATELLITE

Leading Specialists in Large Dish
Systems for Africa & The Middle East

- FIXED & MOTORISED SYSTEMS SPECIALISTS
- TURKISH ARABIC ITALIAN CHANNEL
- SHOWROOM FACILITY
- SKY DECODERS
- SKY AUTHORISED AGENTS
- SALES AND REPAIRS
- COMMUNAL SYSTEMS
- PUBS CLUBS HOTELS
- CAI QUALIFIED ENGINEERS

PHONE FOR BEST PRICE AND SPECIAL OFFERS

ECHOSTAR Digital D-Box
GRUNDIG in stock
PACE **NOKIA** **DRAKE**

MAIN EXPORTER IN CENTRAL LONDON

0171-580 5288

FREE SITE SURVEY - NO OBLIGATION

11 TOTTENHAM CRT RD, LONDON W1P 9DP



**THE MOST UP TO DATE
SATELLITE TECHNOLOGY
FROM THE HEART OF THE CITY**

116 BALLS POND ROAD
ISLINGTON N1 4AE

Tel: 0171 5039111 fax: 0171 5039123

HAMPSHIRE

SOLENT SATELLITE & TV SERVICES 234 Havant Road
Drayton Portsmouth
PO6 1PA

WIDE RANGE OF DIGITAL & ANALOGUE
SATELLITE EQUIPMENT AND
MANY SPECIAL OFFERS.

Mail order/export

Tel: **01705 384693**

Fax: **01705 200454** Mob: **0976 855250**

sales@solsat.demon.co.uk

Visual World

Satellite/Aerial Sales
Repairs, Fittings
D2Mac Decoders
Fixed & Motorised
European Specialists

Shop at 185 Victoria Rd, Aldershot
01252-336015

HORIZON SATELLITES

- ✓ MOTORISED
- ✓ DIGITAL
- ✓ D2 MAC
- ✓ REPAIRS, DIY
- ✓ ACCESSORIES
- ✓ PROFESSIONAL SERVICE & INSTALLATION
- ✓ ALL DISPLAYED & STOCKED AT OUR SHOWROOM

Unit 9, 35-41 Essex Rd **01256**
Basingstoke **841860**
2 minutes M3

LONDON

RTV
SATELLITE
D2 MAC DECODER &
ACCESSORIES
INSTALLATIONS,
REPAIRS & SALE
TRADE & OVERSEAS
ENQUIRIES WELCOME
CHEQUERS PARADE,
DAGENHAM, ESSEX RM9 6RT
Tel: 0181 592 5152 Mobile: 0976 252959
wstv@rtv.co.uk
web page http://www.rtv.co.uk



HENDON SATELLITE CENTRE
FOR ALL SATELLITE REQUIREMENTS
RING FREEPHONE
0800 783 4711

CROSS BORDER COMMUNICATIONS UK LTD

VISIT CHESTER'S PREMIER SATELLITE STORE

Fixed Sky TV Systems
Astra & Hotbird, Motorised
Receivers, Dish Packs in Stock
D2 Mac Decoders
Digital available. All major credit
cards accepted.

FREE SATURDAY MORNING
CLINIC 10 am to 1 pm

Opening hours Mon - Sat 9-5.30
Wednesday 9.00 - 12.30
Mail Order available

84 BOUGHTON,
CHESTER, CHESHIRE
TEL: (01244) 400601 or 0467 481110

BRISTOL



THE AREAS LEADING SATELLITE SHOP
415 LINCOLN ROAD PETERBOROUGH
CALL NOW 01733 340707

PART EXCHANGE/UPGRADE YOUR OLD EQUIPMENT WITH US

sky digital

SKY'S NEW DIGI BOX £199!
CALL FOR THE LATEST NEWS!

FREE TO AIR DIGITAL
FROM £299

QUALITY PAL & D2MAC MOTORISED SYSTEM

Manhattan

£599

XLT9900+ MK2 500CH LOWTHRESHOLD 3.508

LENSON HEATH 1M DISH

GOLD 128 MOUNT, UNIVERSAL 0.6DB LNB

PRE PROGRAMMED WITH ALL THE LATEST CHANNELS

Phillips CTU900 HQ D2MAC INC MM2 CARD FREE

FULLY INSTALLED

WE ARE THE SYSTEM SPECIALIST. WE WILL NOT BE BEATEN ON SERVICE AND VALUE

ALL OUR SYSTEMS COME WITH 12 MONTHS ON SITE WARRANTY

PRICES SHOWN FOR INSTALLATIONS WITHIN 30 MILES - A SMALL SURCHARGE MAY BE ADDED ON LONGER DISTANCES

REFURBISHED - 1D COMPATIBLE
SATELLITE RECEIVERS FROM ONLY **£59.95**

FULL RANGE OF ACCESSORIES & OTHER SYSTEMS IN STOCK
D2 MAC 1W CARDS / P.O.A.

BEDS & HERTS



11 OSPREY ROAD, FLITWICK,
BEDS, MK45 1RU

- ★ Digital + Motorised Systems
- ★ TV + Ariel Sales
- ★ Repairs + Installation
- ★ Computer Networking
- ★ Mobile Phones
- ★ Accessories

TEL: **01525 718079**

MOBILE: **0973 815567**

Est 10 years

SATELLITE TV SPECIALISTS

SALES, INSTALLATIONS, REPAIRS
ORDER OR VISIT OUR SHOP AT:

MFT Co LTD

22 BEDFORD ROAD, LOWER STONDON,
HENLOW, BEDS SG16 6EA

01462 850536

IMPORTANT ADVERTISING COPY

Although every advertisement is carefully checked, occasionally mistakes do occur. We therefore ask advertisers to assist us by checking their advertisements carefully and advise us immediately should an error occur. We regret that we cannot accept responsibility for more than ONE INCORRECT insertion.

ESSEX

SATELLITE SYSTEMS (TV & RADIO AERIALS)

WE ARE PROFESSIONAL INSTALLERS
OF FIXED DISHES OR MOTORISED
(FOR EUROPEAN COVERAGE)
SYSTEMS & ACCESSORIES
SYSTEMS SUPPLIED (MOST MAKES
AVAILABLE) & FITTED OR
CUSTOMERS EQUIPMENT FITTED/
SERVICED



EXPERIENCED INSTALLERS OF ECHOSTAR,
MIMTEC, PHILIPS, SALORA, UNIDEN,
FERGUSON, AMSTRAD, SAKURA, ALBA,
GRUNDIG, ITT NOKIA, TOSHIBA, PANASONIC,
MASPRO, CONNEXIONS, SENTRA NEC,
DISKXPRESS, DRAKE, PACE, SONY,
CHAPARRAL ETC

COMPETITIVE PRICES

- FREE ADVICE ON SYSTEMS
- 7 DAY SERVICE
- METER BEAMED
- SERVICE & SATISFACTION
- FREE SITE SURVEYS
- ALL PARTS OF ESSEX COVERED

SALES -
REPAIRS -
INSTALLATION

MALDON 01621 856218
CHELMSFORD 01245 492832

**ACADEMY
AERIALS**

LINCOLNSHIRE

LINCOLN SATELLITE
LINCOLN'S SATELLITE TV SPECIALIST
SALES & INSTALLATION
FIXED/MOTORISED/UPGRADES
D2-MAC DECODERS & CARDS
SKY DIGITAL AGENTS
Phone NOW for Best Prices
Tel: (01522) 793554
Fax: (01522) 794508
E-Mail: sales@lincsatsat.demon.co.uk
Lincoln, LN4 1QT

SOMERSET

SIGNALMASTER UK's No 1
LUTON TRADING ESTATE,
YEovil, SOMERSET BA22 8RP
★ Sales, Installation, Service & Repairs
★ Fixed, Motorised & Multipoint Systems
Tel No: 01935 413999
ECHOSTAR **PACE** **NOKIA**

WALES

MOTORISED • MOTORISED • MOTORISED
GT **Pace and Echostar**
SATELLITES
Specialists in
• Motorised & D2-Mac
• Digital systems
• EROS cards
always in stock
Nokia 9600.....£449
Nokia 9200.....£399
PLEASE CALL **01792 897096**
• DIGITAL • DIGITAL • DIGITAL • DIGITAL • DIGITAL

MANCHESTER

SATELLITE SUPER VISION
Manchester's NO 1 Satellite Store
CASH & CARRY PRICES
• Interest free credit available
• Full systems from £99 * Univ LNB £35
• Motorised systems specialist
• Motorised kit £150
• Decoders & cards available
inc. Filmnet +, TV1000, Cine Cinema
• Fast repair services
• Digital Decoder, D2Mac upgrades
VISIT OUR SHOWROOM
76 MAULDETH RD, WEST WITHINGTON,
MANCHESTER M20 3FQ
or call 0161-448 0285

MERSEYSIDE

ASTRO SATELLITE
SERVING MERSEYSIDE, CHESHIRE
and NORTH WALES
Motorised and Fixed Systems on Display
Multi Satellite Upgrades and all Accessories
D2 MAC Decoders and Cards
Official Eurotica Cards
Phone for Best Prices
Fast Repair Service
FOR SPECIALIST ADVICE PHONE 0151 638 2518
OR CALL AT 90 MILL LANE, WALLASEY,
MERSEYSIDE
2 MINS FROM END OF M53

MIDDLESEX

ASTRIX COMMUNICATIONS
Official EUROtica (11280)
Cards Available
Official Eros TV cards available
Sales - Service - Installation
D2Mac Decoders + Cards Always in Stock
Upgrades to Dual Sat + Motorised
TV/FM Aerials also installed
Fast Satellite Repair Service
Arabic, French, Italian, Portuguese & Turkish TV
Specialists
PERSONAL SERVICE GUARANTEED
0181-5611511 Mobile 0860 784094
Caxton House, Printing House Lane, Hayes, Middlesex UB3 1AP

NOTTINGHAMSHIRE

GOOGLEBOX
QUALITY EQUIPMENT
LOW, LOW PRICES
PACE **NOKIA**
DIGITAL, D2 MAC, SAT UPGRADES
Free info pack and price list
SOUTHWELL (01636) 815490
ORANGE (0976) 430570

STAFFORDSHIRE

RUGELEY AERIAL & SATELLITE SYSTEMS
MEMBER OF THE
CONFEDERATION OF AERIAL
INDUSTRIES
SKY FULLY QUALIFIED
IN THE FIELD OF
SMATV AND IF DESIGN/
INSTALLATION
ECHOSTAR
Experienced and qualified engineers
specialising in motorised systems. All
brands of fixed systems available, for
friendly, helpful and unbiased advice.
Please contact us on:
Tel: 01889 585481
130 CHASELEY ROAD,
ETCHING HILL, RUGELEY,
STAFFORDSHIRE

SOUTH WEST

SATELLITE WAREHOUSE
Tel/Fax: 01179 515 433
Mobile: 0468 478 203
504B Gloucester Road,
Horfield, Bristol, BS7 8UF
★ Motorised & Digital Specialist
★ All Foreign Channels
★ Decoders
★ Repairs and Installation
Phone for trading hours

SURREY

COMBINED AUDIO & TELEVISION SERVICES
117 COLLINGWOOD CRESCENT
BOXGROVE PARK
MERROW, GUILDFORD
SURREY GU1 2PF
Also at: 35 High Street, Gt Bookham

PACE
GRUNDIG
ON **NOKIA**
skydigital
Telephone for Best Prices
SALES - INSTALLATIONS - REPAIRS
01483 537582/01372 450545

YORKSHIRE

NEW CHANNELS

364a HANDSWORTH ROAD, SHEFFIELD S13 9BV

www.newchannels.demon.co.uk

MOTORISED SPECIALIST

AGENTS FOR: SCT ECHOSTAR NOKIA GRUNDIG SONY PACE DMX
CAMBRIDGE SKY TV VIVANCO IRTE PHILIPS EURO PLUS

MAIL ORDER SPECIALIST PHONE FOR THE BEST PRICES

SHEFFIELD 0114 2692236

VISIT OUR LINKS WEB PAGE TO FIND THE BEST
SATELLITE RELATED LINKS AND OUR BEST PRICES

VISIT OUR SHOP AND SEE PROBABLY THE LARGEST
DISPLAY OF SATELLITE EQUIPMENT IN THE NORTH!



e-mail to sales@newchannels.demon.co.uk

NATIONAL



Join The DIGITAL Revolution
At Hi-Way Hi-Fi

Sky Digital Set Top Boxes

Now In Stock.



We Also Supply a full

Range Of Satellite Equipment From
LNB's To Full Motorised Systems.

Call For Our Best Price's

Hi-Way Hi-Fi Ltd

318-324 Edgware Road London W2 1DY

Tel: 0171 723 5251 Fax: 0171 258 1682

e-mail SALES@HIWAYGROUP.CO.UK



DIGITAL INSTALLATIONS



2A ANGUS CLOSE, CHESSINGTON, SURREY, KT9 2BP

Installation Line: 0800 956 7215. Technical Enquiries: 07956 907694

Sales/Fax: 0181 397 4836. DVD: 0181 286 3301 EMail: digital@pipemedia.co.uk
FOR DVD SALES, RENTAL, INSTALLATIONS, CARDS, UPGRADES, PIN AND REPAIRS

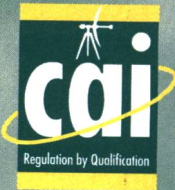
Echostar LT8700 D2MAC/VC1/PANDA/UHF - 80cm motorised system - £850
Echostar AD-2000 IP Digital and Analogue with Positioner - 80cm F/M - £649
Manhattan LTP 7600 motorised system - 80cm - £279. Nokia 1800 satscan - 88cm - £394
Pace 80cm MSS 300 - £399 (add £50 for H2H). 508ip - £450 (add £30 for 1m dish)
MSS 1008ip - £550 (add £90 for D2MAC) Digiquess F1 - £249 F1-VA - £299 F1-CI - £329
F1-VA-CI - £379 Nokia 9200 with CAM - £399 NEW 9800 with Positioner - POA
Philips 916 Version 7d2mac Twin Card - £104 Filmnet £115 Platinum - £69
Multimac 2 with EPROM - £29 Jaeger one cable H2H with positioner - £154
Jaeger H2H 99 SG/128 SG - £99 Jaeger Jack Kit - £95 LNBS Cambridge 0.7 - £27.50
0.6 - £32.50 Twin 0.7 - £38.50
Call Out - £35 Install: Fixed - £49 Twin - £79 Motorised - £159

DVD AND LASERDISC EXCHANGE CLUB
FILMS AND PLAYERS WANTED CALL FOR DETAILS. PLAYERS AVAILABLE
EG: PIONEER 909 DVD/LASER/VCD RRP: £999
REGION 1-6 OUR PRICE: £750
COPY YOUR DVDS TO VIDEO WITH AN NTSC TO PAL RESYNCR £319
COPYMATE VIDEO TO VIDEO/SKY BOX OFFICE/ADJUSTABLE CONTRAST/DETAIL £59
VIDEO TAPES 10 FOR £1.09 EACH 50 FROM 99P EACH
TERMS AND CONDITIONS OF CLUB AVAILABLE ON REQUEST

NATIONAL

CARDMAGIC

D2 MAC CARDS - DIGITAL ETC - UPGRADES
PO BOX 3194 POOLE BH12 2ZJ
07930 463 206



CALLING ALL CAI MEMBERS

BETTER SATELLITE

HAS PRODUCED A SECTION JUST FOR YOU!

For more info call Stuart Sheers on
0171-331 1283

NATIONAL

From only £20

LNB Switches
(From the manufacturer)

For any type of Satellite Receiver!
YES # INCLUDING DIGITAL

+ 3 way Priority Switches! and many more unique -

Gizmos! Phone: 07971 378921

From only £20

The 3 & 4 way Little Switch
An International Favorite, as used by Date Scandinavia at upto £100 each!

Switch from Astra to Hotbird and 1° West etc. by remote control

Fax Back Service 01407 742436 24 HOURS



PROMAX

HELPING TO INSTALL A BETTER WORLD

£800



Accuracy on analogue & digital TV level, digital carrier level, C/N, data logger, spectrum display.

£895



Terrestrial & Satellite TV. Spectrum & picture monitor. Mast head & LNB Voltages & 22KHz.

£365

PROLINK 1



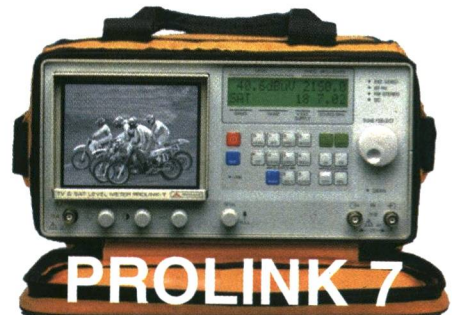
Select by channel or frequency. Superb signal scanning feature. Flexible data logging functions.



Sat dish alignment meter. Analogue & digital. Simple but very effective.

£50

Measures QAM, QPSK & COFDM signals. TV pictures taken from MPEG TS signal. Fast & accurate measurement of B.E.R. for system installers & broadcast.



Powerful analyser, yet easy to use synthesized & CH tuning 5 to 2150 MHz level, dig carrier, C/N, BER, and more! Exciting data logging operation.



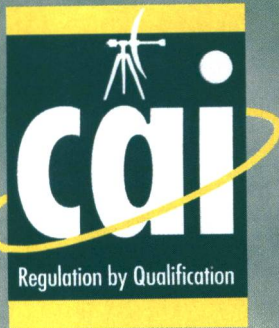
Alban

ALBAN ELECTRONICS LIMITED
6 Caxton Centre, Porters Wood,
St. Albans, Herts., AL3 6XT.
Tel: 01727 832266 Fax: 01727 810546
SALES, SERVICE & CALIBRATION



WIDEST CHOICE OF ANALOGUE & DIGITAL TV SIGNAL LEVEL METER & SPECTRUM ANALYSERS. CALL FOR TECHNICAL SUPPORT & CATALOGUE

YOUR GUIDE TO LOCAL CAI QUALIFIED SATELLITE INSTALLER



You've bought your new satellite system and now you want to install it. Who do you go to?

Look no further than your local CAI installer.

The CAI (Confederation of Aerial Industries Limited) is THE recognised trade body for the aerial and satellite industry. The CAI is committed to raising standards within the industry and whilst the criteria for membership is extremely high, the consumer is assured of A QUALITY INSTALLATION AT A FAIR PRICE.

What is so special about a member of the CAI?

- * CAI Members only employ qualified personnel whose work is monitored by an inspector.
- * All CAI Members are required to work to the exacting standards laid down in the CAI's Codes of Practice.
- * All CAI Members guarantee their installations for a minimum of twelve months. In addition, the CAI undertakes to back-up this guarantee with its own twelve months guarantee, for domestic installations only.
- * CAI Members should carry identity cards that clearly state their name and company details together with a photograph.
- * All CAI Members are required to have full insurance cover. This gives the consumer total peace of mind before the work commences.
- * If a customer is unhappy with any aspect of the installation, the CAI has a formal complaints procedure.

NAME, ADDRESS & TELEPHONE/FAX NUMBERS

TV AERIALS	FM AERIALS	HI-FI AERIALS	SATELLITE DISH	MOTORISED SATELLITE DISH	DUAL LNB INSTALLATION	MATV/SMARTV	CCTV	CATV	DIGITAL TV	SELF-HELP SCHEMES	ALARM SYSTEMS	SATELLITE DISH REPAIRS	TV/VIDEO REPAIRS	SERVICING	CAI SMARTV APPROVED INSTALLER
------------	------------	---------------	----------------	--------------------------	-----------------------	-------------	------	------	------------	-------------------	---------------	------------------------	------------------	-----------	-------------------------------

LONDON

AVIS TV SERVICES 6 Golders Rise, Hendon, London NW4	Tel: 0181 202 0221 Fax: 0171 794 8549 Mobile: 0956-382388	*	*	*	*	*	*	*	*	*	*	*	*	*	*
DEFIELD THE AERIAL SHOP LTD. 188b Halfway Street, Sidcup, Kent	Tel: 0181 300 5588 Fax: 0181 300 7454	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CAI VISION LTD. Vision Hse, Landells Rd, London SE22 9PP	Tel: 0181 693 0115 Fax: 0181 693 8227	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GRANT CONWAY T.V. 120 Station Rd, Chingford Ldn E4 6AB	Fax/Phone 0181 529 8045 Mobile: 0831 217708	*	*	*	*	*	*	*	*	*	*	*	*	*	*
HADLEIGH AERIAL & SATELLITE SERVICES 398 High Road, Benfleet, Essex S57 5HL	Tel: 0701 0705 123 Fax: 01268 566670	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MATTHEW AERIAL & SAT. SYSTEMS, 57A Glencoe Road, Bushey, WD2 3DP. Extra coverage Greater London	Tel: 0181 950 2213 Fax: 0181 950 4262	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PJS DIGITAL SYSTEMS, 275 Morland Road, Croydon, Surrey CR0 6HE.	Tel: 0800 056 4019 Tel: 0800 056 1663 Fax: 0181 654 2444	*	*	*	*	*	*	*	*	*	*	*	*	*	*
THE SATELLITE & TV PLACE, 32 Green Lane, Northwood, Middx. Extra coverage Greater London	Tel: 01923 836027 Fax: 01923 820973	*	*	*	*	*	*	*	*	*	*	*	*	*	*

BERKSHIRE

RACE COMMUNICATIONS, Suffolk House, 13 High St, Sunningdale. Extra coverage Bucks	Tel: 01344 621531 Fax: 01344 624526	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SKYWISE UK LTD, Suffolk House, 13 High St, Sunningdale, Extra coverage Surrey, Northeast Hants	Tel: 01344 873812 Fax: 01344 624526	*	*	*	*	*	*	*	*	*	*	*	*	*	*

BUCKINGHAMSHIRE

ATLAS SATELLITE SYSTEMS, 131 Totteridge Lane, High Wycombe	Tel: 01494 444060 Fax: 01494 464847	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PDS AERIAL SYSTEMS, 1 Windmill Pde, Georges Hill, Widmer End, High Wycombe. Extra coverage Berks	Tel: 01494 711769 Fax: 01494 711767	*	*	*	*	*	*	*	*	*	*	*	*	*	*

CHESHIRE

CROSS BORDER COMMUNICATIONS 84 Boughton, Chester	Tel/Fax: 012444 00601 Mobile: 0467 481110	*	*	*	*	*	*	*	*	*	*	*	*	*	*
---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ESSEX

BENNETT AERIALS, 59 London Road, Lexden, Colchester.	Tel: 01206 768702 Fax: 01206 575742	*	*	*	*	*	*	*	*	*	*	*	*	*	*
---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---

HAMPSHIRE

APOLLO SAT. & AERIAL SERVICES, 27 Dukes Rides, Silchester, Reading	Tel/Fax: 0118 9701494 Mobile: 0860 574431	*	*	*	*	*	*	*	*	*	*	*	*	*	*
HORIZON SAT. & AERIAL SERVICES, Unit 9a, 35-41 Essex Road, Basingstoke	Tel: Fax/Phone: 01256 841860 Email: horizon.satellites@virgin.net	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VISUAL WORLD, 185 Victoria Road, Aldershot, Hants GU11 1JU Sales@Visualworld.co.uk	Tel: 01252 336 015 Fax: 01252 316 245	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Calling all CAI Members, do you want to be introduced to a potential 62,692 customers, then call Luke Dyer on 0171-331 1238!

NAME, ADDRESS & TELEPHONE/FAX NUMBERS

TV AERIALS
FM AERIALS
HI-FI AERIALS
SATELLITE DISH
MOTORISED SATELLITE DISH
DUAL LNB INSTALLATION
MATV/SMATV
CCTV
CATV
DIGITAL TV
SELF-HELP SCHEMES
ALARM SYSTEMS
SATELLITE DISH REPAIRS
TV/VIDEO REPAIRS
SERVICING
CAI SMATV APPROVED INSTALLER

HERTFORDSHIRE

SATELLITE TELEVISION CONTRACTORS LTD. Tel: 01442 252051
106 London Rd, Hemel Hempstead

KENT

KENT SATELLITES, 57 High Street Fax/Phone 01795 661151
Sheerness, Kent ME12 1NT. Freephone 0800 068 5007
PJS DIGITAL SYSTEMS, 275 Morland Road, Croydon, Tel: 0800 056 4019
Surrey CR0 6HE. Tel: 0800 056 1663 Fax: 0181 654 2444

NORTH YORKSHIRE

DANBY SATELLITE AND AERIALS, Tel/Fax: 01751 474449
53 Whitfield Ave, Pickering. http: www.danby.co.uk, Mobile: 0402 519849

READING

APOLLO SATELLITE & AERIAL SERVICES, Tel/Fax: 0118 9701494
27 Dukes Ride, Silchester, Reading Mobile: 0860 574431

STAFFORDSHIRE

RUGELEY AERIAL & ELECTRICAL, Tel: 01889 585481
130 Chaseley Rd, Etching Hill, Rugeley.

SUFFOLK

BAYFIELD AERIALS, Unit 4, Riverside View, Freephone: 0800 026 6969
Wickham Market, Woodbridge, Suffolk IP13 07A Fax: 01728 747 740

SURREY

PJS DIGITAL SYSTEMS, 275 Morland Road, Croydon, Tel: 0800 056 4019
Surrey, CR0 6HE Tel: 0800 056 1663 Fax: 0181 654 2444

SUSSEX

PJS DIGITAL SYSTEMS, 275 Morland Road, Croydon, Tel: 0800 056 4019
Surrey, CR0 6HE Tel: 0800 056 1663 Fax: 0181 654 2444

WEST MIDLANDS

BILLELEY SATELLITE Tel: 0121 443 1189
76 Beauchamp Rd, Billeley, Birmingham. Advice Free. Fax: 0121 243 0703

WEST YORKSHIRE

BEAUMONT LEISURE, 12 Mayfield Ave, Bailiff Bridge
Brighouse, Huddersfield, Yorkshire HD6 4EF Tel: 01484 716 865

YORKSHIRE

NEW CHANNELS, (Retail Shop) 364 A, Handsworth Rd,
Sheffield. Email: sale@newchannels.demon.co.uk Tel: 01142 692236
Fax: 01142 2693227

IRELAND

IRELAND'S SATELLITE SPECIALISTS, Tel: 4550383/087 607864
9 Glendown Green, Dublin 6W E-Mail info@irelandsat.ie Fax: 4650431

WALES

ACTION AERIALS & SATELLITE SERVICES Fax/Tel: 01239 654947
Blaenau, Llangrannog, Llanysul, Ceredigion SA44 6RP Mob: 0836 534503
MULTI-SAT, 30-40 High St, Holywell, Flintshire Tel: 01352 711812
Extra coverage Holywell, Flintshire Fax: 01352 710572

CALLING ALL CAI REGISTERED INSTALLERS

Would you like your company to be seen by 62,692*
purchasers of satellite systems who each want to get their
new system professionally installed?

If the answer is YES
and you like the look of this new section.

CALL LUKE DYER ON 0171-331 1238



Regulation by Qualification

*ABC Audited circulation

for your slice of the cake

Breaking the news

CNN'S FIONNUALA SWEENEY TELLS BETTER SATELLITE WHAT HAPPENS BEHIND THE SCENES AT THE TOP NEWS CHANNEL

Imagine sitting in front of an audience of more than 100million people for several hours every day. The world would be watching your every move; judging your facial expressions, the way you talk, your eye contact and how you dress.

Just the thought is enough to make most folk quiver. But for the presenters at news channel CNN International it's just something they get used to.

Fionnuala Sweeney, who anchors CNN's 6pm and 9pm *World News* bulletins, tells *Better Satellite*: 'The audience tends to get filtered out by the camera so even though you know millions of viewers are watching you just don't think about it.'

Considering her media background, it's hardly surprising that Fionnuala takes it all in her stride. She joined CNN five years ago, moving from Ireland, where she worked with state broadcaster RTE as a radio/TV reporter and presenter from 1988 to 1993. She also presented the 1993 Eurovision Song Contest.

Recently promoted to the role of main prime-time presenter at the London bureau of CNN, she's covered some major stories. These include the death of Princess Diana, the hostilities in Iraq and the funeral of Jordan's King Hussein – all harrowing stories that had an impact on viewers.

But news presenters must put their personal feelings aside and remain objective. Fionnuala says: 'I tend to get so

focused on the job in hand that the logistics of what is happening tend to be at the front of my mind rather than story itself.

'The nature of rolling news means you have to be thinking ahead to the next interview or, in the case of political stories, whether there will be live statements from, say, Downing Street or the White House. It's only later when I get home that I start to think about how the story might affect me.'

Being on air during a breaking story can also be hectic. A small earpiece keeps Fionnuala in constant contact with CNN's programme director in Atlanta (US). 'You are, in effect, carrying out two conversations at once,' she says.

'You have to listen to what's going on in Atlanta and at the same time interview newsmakers or read from an autocue. When you consider that there's a second-and-a-half delay in the feed from Atlanta, things can get tricky!'

One of CNN's strengths is in breaking news and then using its global network



Cool, calm and collected: Fionnuala is just too busy to get nervous on air

'The nature of rolling news means you have to be thinking ahead to the next interview'

Instant reactions: 'You do get a buzz from breaking big stories'

of reporters to provide comprehensive analysis. This, says, Fionnuala makes presenting such stories exciting.

'You do get some buzz from breaking big stories. CNN has the unique ability to call upon its bureaux for live coverage and instant reaction. During the Iraqi bombings last December, we presented simultaneous live coverage from Baghdad, the White House, London and the Pentagon.'

When she's not in front of the camera, 34-year-old Fionnuala enjoys getting away from the hustle and bustle of the newsroom for some quiet time. She frequently visits the theatre and cinema and takes regular trips to see her family in Dublin. She's also involved with the charity, Irish Youth Foundation.

□ Fionnuala Sweeney presents *CNN International's 6pm and 9pm weekday bulletins and Inside Europe every weekend*



12 months interest free credit or buy now pay later*

Shopaplan INSTANT CREDIT
interest free credit or **BUY NOW**
PAY LATER please ask for details

ALL CASES CONSIDERED

- Disabled
- Self-employed
- Retired
- Living with parents
- Difficult cases

*Subject to status

Vision On

card company

New Adult Channel
TORRID TV

Erotic hardcore adult entertainment
Broadcasts every night from **HOTBIRD**
13°East in **D2 MAC (11.282 vertical)**
Also on Digital - **INTELSAT 707**
1°West (11.592 horizontal)

D2 or DIGITAL

12 month Viewing Card £129.99
Conax CAM for digital card £99.99

Need Codes?

Get the latest info on what's
going on in the industry
PLUS all the update
codes for
D2 Mac†

0891 633468



Giga Video
£169.99

Vision On

receivers

Digital



Manhattan ST2000 £369.99

- 2 CAM SLOTS ■ DiSEqC switching
- SVHS socket ■ UHF ■ IF loopthrough



Nokia 9600 only £389.99

- Common Interface ■ 3 scarts
- RS232/SCSI port

Ready with Common Interface

DIGIQUEST from £269.99

- P100** Free to Air **£269.99**
- P1000** 2 CAM slots **£369.99**
- P1000VA** Viaccess + 2 CAM slots **£399.99**
- P250VA** Viaccess + 2 Card slots **£299.99**



digital motorised

Echostar AD 2000 ip £529.99

- Analogue/digital motorised receiver
- with internal positioner

Call **FREE** for motor/dish pricing

Orbit Digital £629.99

Receive American ESPN Sports Network

- Hollywood Supermovies ■ MPEG 1.5
- Powervu encryption



XSAT CDTV 300 £249.99

- Good for TPS, ABSAT, SCT
- With Viaccess CAM built-in

skydigital

Systems from £199 installed*

- Subscription packages from **£6.99 to £29.99 per month***
- Sky Digibox from £199 installed* - Pace, Grundig, Panasonic and Amstrad Sky Digiboxes in stock

†Conditions apply - ask for details *Plus a one-off connection charge of £30.00

digital
on

- No dish required
 - Lots of quality channels
 - Set top boxes from £199.99
- From £7.99 per month**

cards and subscriptions

Digital Cards

TELEPUI
DFI
GREEK HALLAS
DUTCH MULTICHOICE
SOUTH AFRICAN M/C
SHOW TIME **All £199.00**

Official Digital Cards
(12 months subscription)

SVT £299.00
AB Sat (French) £349.99
TPS (French) £325.00
Canal + 1°W £599.99
(includes CAM)
NTV (Russian) £179.99

CALL FREE FOR ANY OTHER SUBSCRIPTIONS

D2 MAC Cards

GEM GOLD CARD £69.00

SATURN 4 CARD

- Updates codes before they change
- £99.00**

MICROMAC CARD

The ultimate D2 Mac card

- Self updating on all channels
- £179.99**

Satisfaction TV

THE BEST FROM ITALY 7 NIGHTS A WEEK

- The best Digital hardware for Viaccess and Irdeto
 - 12 months card
- £199.99**

For all you **9600 owners** - card and CAM plugs straight in
£279.99

Sky Digital TV Link & Remote **Special Offer £39.99**



Vision On

1512 STRATFORD ROAD, HALL GREEN BIRMINGHAM B28 9ET

(On the Robin Hood island.) Ample free parking

Tel **0121 745 1115**

Fax **0121 745 2552**

Mail Order Hotline **0800 731 3792**

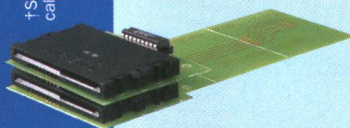
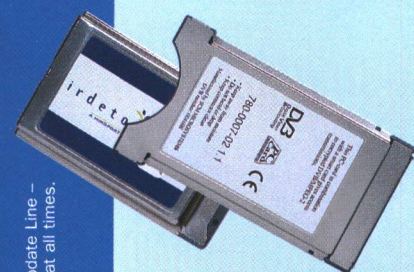
Info hotline **0891 633468**

E-mail **sales@vision-on.co.uk**

internet **www.vision-on.co.uk**

CAMS

Irdeto £79.99
Viaccess £99.99
Conax £129.99
Cryptoworks £109.99



Twin Card Reader
for use with Nokia 9200
£49.99

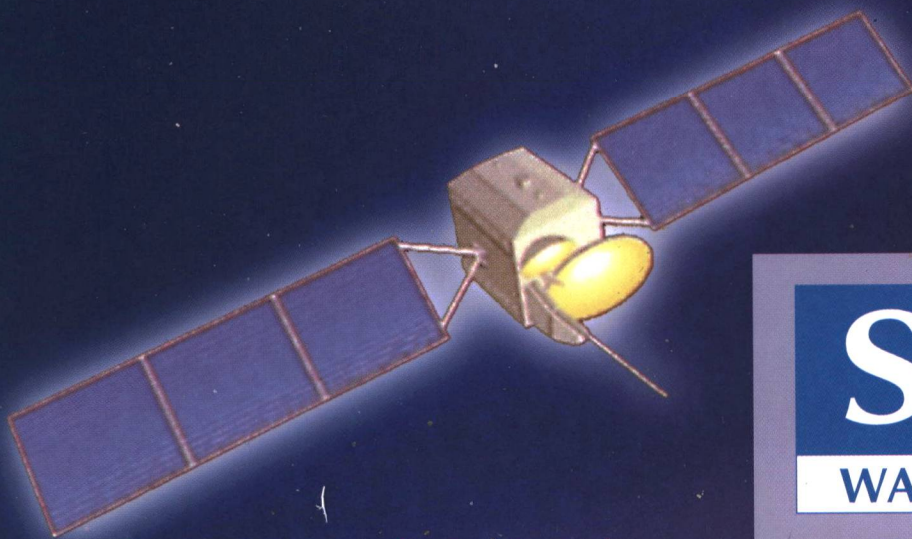
0800 731 3792

freephone

Technical Support hotline 0121 745 1115
fax 0121 745 2552 www.vision-on.co.uk

Lines open 9.30 to 5.30
Monday - Saturday





Central Control



MC140 Highway £995 inc VAT

Monterey *Classic* Digital £2500 inc VAT



Satellite Communication Technology Ltd

SCT Monterey receivers are designed to give **CENTRAL CONTROL** of your whole system via integrated AV Switchers and Datalinks using **ONE** handset and **ONE** dish.

Co-ordinate BSkyB Digibox, Free to Air and Common Interface Units.

Add ONdigital and HiFi management if you wish.

Watch and control any device from any room.

The established leader in Multi-Satellite reception equipment

• User friendly and up-gradeable technology

• Digital and Analogue configurations

• Dedicated, reliable and professional service

Satellite Communication Technology Ltd

Ware Road, White Horse Business Park,

Stanford in the Vale, Faringdon, Oxfordshire SN7 8NY

Tel: +44 (0)1367 710505 Fax: +44 (0)1367 718340

Email: sct@wtw.co.uk Web site: <http://www.wtw.co.uk>